NASA TECHNICAL NOTE



THERMODYNAMIC PROPERTIES OF GASEOUS FLUOROCARBONS AND ISENTROPIC EQUILIBRIUM EXPANSIONS OF TWO BINARY MIXTURES OF FLUOROCARBONS AND ARGON

Noel A. Talcott, Jr.

Langley Research Center Hampton, Va. 23665

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION . WASHINGTON, D. C. . APRIL 1977

Changes roses made 1 gian 79 gt

ERRATA

NASA Technical Note D-8405

THERMODYNAMIC PROPERTIES OF GASEOUS FLUOROCARBONS AND ISENTROPIC EQUILIBRIUM EXPANSIONS OF TWO BINARY MIXTURES OF FLUOROCARBONS AND ARGON

Noel A. Talcott, Jr. April 1977

The chemical formula for one of the fluorocarbons is given incorrectly. Please change CCl_2F - CCl_2F to CCl_2F - CCl_2F in the following places:

ABSTRACT in line 6 -

SUMMARY (page 1) in line 6 -

INTRODUCTION (page 1) in line 11 -

Page 4 in 8th column heading of the table —

Page 49 in 7th column heading of table B1 and in 7th column heading of table B2

Page 50 in 7th column heading of table B3

Two of the thermodynamic constants for fluorocarbon CCl_2F_2 are in error. Please make the following changes on page 49:

Table B1: In column 3, change the value for A_2 from -1.9×10^2 to -9.16×10^1

Table B2: In column 2, change the value for c_4 from -2.84×10^{-4} to -3.27×10^{-4}

An error has been found in the computer code which caused erroneous values to be added to the output in table IV for fluorocarbon C_4F_8 on page 104. Please replace pages 10, 24, and 104 with the attached corrected pages.

sinder 5-7-8/der

ERRATA

NASA Technical Note D-8405

THERMODYNAMIC PROPERTIES OF GASEOUS FLUOROCARBONS AND ISENTROPIC EQUILIBRIUM EXPANSIONS OF TWO BINARY MIXTURES OF FLUOROCARBONS AND ARGON

Noel A. Talcott, Jr.

April 1977

An error has been found in the computer code which caused the tabulated fluorocarbon values of h/RT, c_p/R , and s/R to be in error by a constant multiplier. The molecular weight of CF_4 was erroneously used in conjunction with the universal gas constant, R, and the ice point of water, $T(273.15^{\circ} \text{ K})$, in converting the fluorocarbon values from U.S. Customary Units to the tabulated S.I. Units. The values in tables I, II, III, V, and VI are still usable, but conversion back to dimensional values will be in error unless multiplied by the molecular weight of the fluorocarbon in question divided by the molecular weight of CF_4 .

Example: In table II convert s/R = 7.50 to dimensional units:

R = R/M

where

R universal gas constant

M molecular weight of CCl₂F₂

However, the molecular weight of CF $_{\mu}$ was incorrectly used to obtain s/R = 7.50. Therefore this value must be multiplied by $\tilde{M}_{CCl_2F_2}/\tilde{M}_{CF_{\mu}}$ to obtain the correct value for s/R:

$$\frac{s}{R} = 7.5 \left(\frac{120.92}{88} \right) = 10.3057$$

The dimensional value of s is obtained as follows:

$$s = 10.3057 \left(\frac{8314}{120.92} \right) = 708.58$$
 J/(kg-K)

```
The following corrections to the computer code will correct the error:
Page 21: Change line 375 from
     IF(UNIO.GT.1.) STAB(I) = STAB(I)/44.289180
     IF(UNIO.GT.1.) STAB(I) = STAB(I)/(EM/1.987)
to
Page 22: Change line 390 from
     IF(UNIO.LE.1.) STAB(I) = STAB(I)/44.289180
to
     IF(UNIO.LE.1.) STAB(I) = STAB(I)/(EM/1.987)
Page 39: Change lines 173 and 174 from
     OUTS = S * 44.289180
     OUTH = H * .090075418
     OUTS = S * (EM/1.987)
to
     OUTH = H * (EM/976.9483)
     Change line 176 from
     OUTCP = CP * 44.289180
to
     OUTCP = CP * (EM/1.987)
     Change line 193 from
    IF(UNIO.EQ.2.) XPLOT(NN) = OUTH * .090075418
to
     IF(UNIO.EQ.2.) XPLOT(NN) = OUTH  (EM/976.9483)
Page 43: Change line 54 from
     OUTS = STAB(I) * 44.289180
```

OUTS = STAB(I) * (EM/1.987)

to

1. Report No.	2. Government Access	ion No.		0134150				
NASA TN D-8405		- <u></u>						
4. Title and Subtitle	IS OF GASEOUS FLUO	NOGA DDONG	1 .	5. Report Date				
THERMODYNAMIC PROPERTIE				April 1977				
AND ISENTROPIC EQUILIBR MIXTURES OF FLUOROCARBO		IMO DINA	6. Perfo	6. Performing Organization Code				
7. Author(s)			8. Perfo	rming Organization Report No.				
Noel A. Talcott, Jr.			L-	L-11274				
,			10. Work	10. Work Unit No.				
9. Performing Organization Name and Addr	ess		50	5-11-31-02				
NASA Langley Research C	enter		11 Cont	ract or Grant No.				
Hampton, VA 23665			11. Con	ract of Grant 140.				
12. Sponsoring Agency Name and Address		13. Type of Report and Period Covered Technical Note						
National Aeronautics an	d Space Administra	ation						
Washington, DC 20546	•		14. Spon	soring Agency Code				
	•							
15. Supplementary Notes								
16. Abstract								
Equations and compu	iter code are give	n for the	thermodynamic	properties of				
gaseous fluorocarbons i	n chemical equili	orium. I	n addition, is	sentropic equilib-				
rium expansions of two	binary mixtures of	ffluoroc	arbons and arg	on are included.				
The computer code calcu								
some cases, the transpo	ort properties for	the loll	owing linowoos	roons: cci ₃ r,				
CCl ₂ F ₂ , CBrF ₃ , CF ₄ , CHC Equilibrium thermodynam	12^{r} , 0012^{r}	tabulata	d for gir of f	be fluoreearbons				
CCI F CCI F CPrF	ITC properties are	C.F.) an	d nressure-ent	halny diagrams				
(CCl ₃ F, CCl ₂ F ₂ , CBrF ₃ , are presented for CBrF ₃	or 4, or 3 - or 3, and	04187 41.	d pressure-end	maipy arabi amb				
are presented for our s	3 •							
	ř							
17. Key Words (Suggested by Author(s))		18. Distribution Statement						
Freon	Unclassified - Unlimited							
Refrigerants		,,						
Fluorocarbons								
				Subject Category 34				
19. Security Classif. (of this report)	20. Security Classif. (of this	page)	21. No. of Pages	22. Price*				
Unclassified	Unclassified		109	\$5.25				

 $^{^{\}star}$ For sale by the National Technical Information Service, Springfield, Virginia 22161

THERMODYNAMIC PROPERTIES OF GASEOUS FLUOROCARBONS AND ISENTROPIC EQUILIBRIUM EXPANSIONS OF TWO BINARY MIXTURES

OF FLUOROCARBONS AND ARGON

Noel A. Talcott, Jr. Langley Research Center

SUMMARY

Equations and computer code are given for the thermodynamic properties of gaseous fluorocarbons in chemical equilibrium. In addition, the thermodynamic properties of several binary mixtures of fluorocarbons and argon are included. The computer code calculates the thermodynamic properties and, in some cases, the transport properties for the following fluorocarbons: CCl_3F , CCl_2F_2 , $CBrF_3$, CCl_2F , $CHCl_2F$, $CHCl_2F$, $CHCl_2F$, CCl_2F - CCl_2F -

Equilibrium thermodynamic properties are tabulated for six of the fluorocarbons (CCl $_3$ F, CCl $_2$ F $_2$, CBrF $_3$, CF $_4$, CF $_3$ -CF $_3$, and C $_4$ F $_8$) for constant values of a dimensionless entropy s/R in increments of 0.5 and up to 588 K. Pressureenthalpy diagrams containing lines of constant entropy, temperature, volume, and compressibility factor can be generated by the computer program. An example of these plots has been included for CBrF $_3$.

The thermodynamic properties are also tabulated for two equilibrium isentropic expansions for binary mixtures of $CBrF_3$ -argon and CCl_2F_2 -argon.

INTRODUCTION

Several gaseous fluorocarbons are being or have recently been used in hypersonic wind tunnels to simulate real-gas effects on aerodynamic shapes. (See refs. 1 and 2.) Also fluorocarbon-argon mixtures are currently being examined for nozzle exhaust plume simulation at hypersonic speeds. (See refs. 3 and 4.) This research in turn has generated interest in the thermodynamic and transport properties of fluorocarbons and fluorocarbon-argon mixtures.

A previous computer code (ref. 5) was written to generate the properties for CF $_4$. This report describes a more general version of that program which will provide the thermodynamic properties and, in some cases, the transport properties for the following fluorocarbons: CCl_3F , CCl_2F_2 , $CBrF_3$, CF_4 , $CHCl_2F$, CHF_3 , $CCl_2F-CClF_2$, $CCl_2F-CClF_2$, CF_3-CF_3 , and C_4F_8 .

The equations and computer code are presented for the thermodynamic properties of the fluorocarbons. These properties are tabulated for six of the fluorocarbons (CCl $_3$ F, CCl $_2$ F $_2$, CBrF $_3$, CF $_4$, CF $_3$ -CF $_3$, and C $_4$ F $_8$) for constant values of a dimensionless entropy s/R in increments of 0.5 and up to 588 K. Pressure-enthalpy diagrams containing lines of constant entropy, temperature, volume, and

compressibility factor can be generated by the program. Because of the current interest in using CBrF3-argon mixtures in simulating scramjet exhaust flows, plots for CBrF3 are included to demonstrate this capability.

Appendix A presents the computer code for calculating thermodynamic propererties of selected fluorocarbons. The constants for the thermodynamic equations for the 10 fluorocarbons are given in appendix B. Through the use of an available computer code (ref. 6), the thermodynamic properties for two equilibrium expansions of binary mixtures for CBrF $_3$ -argon and CCl $_2$ F $_2$ -argon are given in appendix C.

SYMBOLS

```
A,B,C,D,E,F,G,L
                             constants in saturation pressure equation (eq. (12))
A',B',C',D',
E',F',G',H',
I',J'
                             constants in entropy equation (eq. (15))
A<sub>1</sub>,B<sub>1</sub>,C<sub>1</sub>,
D<sub>1</sub>,E<sub>1</sub>,F<sub>1</sub>
                             constants in saturation pressure equation (eq. (22))
A<sub>2</sub>,A<sub>3</sub>,A<sub>4</sub>,A<sub>5</sub>,A<sub>6</sub>,
B<sub>2</sub>,B<sub>3</sub>,B<sub>4</sub>,B<sub>5</sub>,B<sub>6</sub>,
b,C<sub>2</sub>,C<sub>3</sub>,C<sub>5</sub>,K
                             constants in equation of state (eq. (1))
A2',A3',A4',
B2',B3',B4',
C2',C4',D4'
                             constants in equation of state (eq. (13))
A_s, B_s, C_s, D_s, E_s
                             constants in saturation pressure equation (eq. (17))
                             speed of sound
a',b',c',d',e'
                             constants in equation for specific heat (eq. (14))
                             constants in equation for specific heat (eq. (19))
a_1, b_1, c_1, d_1, f_1
a_h, b_h, c_h, d_h, f_h
                             constants in equation for specific heat (eq. (2))
                             specific heat at constant pressure
cp
                             specific heat at constant volume
c^^
f
                             functional notation
h
                             enthalpy
J
                             unit conversion factor
K', L', M', N', P'
                             constants in enthalpy equation (eq. 16))
```

2

```
k
                     thermal conductivity
k*
                     thermal conductivity at atmospheric pressure
M
                     molecular weight
                     exponents in equation (24)
m,n
N,P,Q
                     constants in viscosity equation (eq. (23))
                     Prandtl number, \mu_{c_n}/k
N_{Pr}
p
                     pressure
R
                      gas constant
                      entropy
Τ
                      temperature
٧
                      specific volume
Х
                      constant in enthalpy equation (eq. (4))
χţ
                      constant in enthalpy equation (eq. (21))
Y
                      constant in entropy equation (eq. (3))
Y '
                      constant in entropy equation (eq. (20))
Z
                      compressibility factor, pV/RT
                      constant in equation of state (eqs. (1) and (18))
α
β
                      proportionality constant (eq. (24))
βľ
                      constant in equation of state (eq.(18))
Υ
                      ratio of specific heats, c_{p}/c_{v}
                      isentropic exponent (eq. (8))
Υe
                      viscosity
μ
μ*
                      viscosity at atmospheric pressure
                      viscosity parameter, T_c^{1/6}/M^{1/2}p_c^{2/3}
ξ
                      density, 1/V
ρ
                      reduced density, V<sub>C</sub>/V
^{\rho}R
```

Subscripts:

e critical

R reference

s saturation

0 stagnation

PHYSICAL CHARACTERISTICS

Fluorocarbons are organic compounds containing one or more carbon atoms and flourine. Chlorine, bromine, and hydrogen atoms also may be present. Their principal characteristics include nonflammability, low toxicity, excellent thermal and chemical stability, high density coupled with low boiling point, low viscosity, and low surface tension. (See ref. 7.) Physical properties of fluorocarbon compounds of interest herein are contained in the following table:

Characteristic	Value for fluorocarbon -										
	CC13F	CC1 ₂ F ₂	CBrF3	CF4	CHC12F	снғ3	CC12F-LE	CC1F2-CC1F2	CF3-CF3	C4F8	
Molecular weight	137.37	120.92	148.92	88.0	102.93	70.01	187.38	170.93	138.01	200.04	
Boiling point at 1 atm, K	296.67	243,12	215.18	148.38	281.79	190.93	320.40	276.64	194.73	267.09	
Freezing point, K	161.88	115.26	105.27	89.17	138.01	117.81	237.91	179.08	172.37	231.76	
Critical temperature, K	470.68	384,76	339.81	227.26	45119	298.74	486.77	418.45	292.58	388.42	
Critical pressure, atm	43.5	40.6	39.1	36.96	51.0	47.70	33.7	32.2	29.4	26.78	
Critical volume, cm3-mol-1	247.0	217.0	200.0	141.0	197.0	133.0	325.0	293.0	225.0	322.63	
Critical density, kg-m ⁻³	554.24	557.44	744.86	625.68	514.19	525.09	576.67	581.79	612.07	611.91	
Density, liquid at 298 K,	1475.94	1310.95	1537.94	1316.88	1366.06	669.89	1564.85	1456.24	1587.11	1500.0	
kg-m ⁻³											
Density, saturated vapors	5.879	6.327	8.714	7.625	4.565	4.66	7.385	7.833	9.002	8.8102	
at boiling point, $kg-m^{-3}$]					
Specific heat, liquid at	870.27	970.69	870.27	1230.10	1071.10	1443.48	912.11	1016.71	970.69	906.55	
298 K, J-kg-1-K-1											
Specific-heat ratio at	1.137	1.137	1.144	1.159	1.175	1.191	1.080	1.084	1.085	1.066	
1 atm and 298 K											
Heat of vaporization at	. 18025	. 16521	.11879	. 13600	.24221	.23958	.14679	. 13612	.11709	. 10697	
boiling point, MJ-kg-1	_									(at 294 K)	

THERMODYNAMIC PROPERTIES OF GASEOUS FLUOROCARBONS

The following equations were provided by E. I. du Pont de Nemours & Co. (ref. 8) and can be applied to all the fluorocarbons of interest herein (see previous section) except $CBrF_3$ and CF_3-CF_3 which will be handled separately. All the coefficients can be found listed by fluorocarbon in appendix B. (The coefficients were supplied in U.S. Customary Units and have been converted to SI Units.)

The equation of state is

$$p = \frac{RT}{V - b} + \frac{A_2 + B_2T + C_2e^{-KT}}{(V - b)^2} + \frac{A_3 + B_3T + C_3e^{-KT}}{(V - b)^3} + \frac{A_4 + B_4T}{(V - b)^4} + \frac{A_5 + B_5T + C_5e^{-KT}}{(V - b)^5} + (A_6 + B_6T)_e^{\alpha V}$$
(1)

where p is given in Pa, V in m^3-kg^{-1} , and T in K.

The specific heat at constant volume is given by

$$c_{\mathbf{v}} = a_{\mu} + b_{\mu}T + c_{\mu}T^{2} + d_{\mu}T^{3} + \frac{f_{\mu}}{T^{2}} - TK^{2}e^{-KT} \left[\frac{c_{2}}{v - b} + \frac{c_{3}}{2(v - b)^{2}} + \frac{c_{5}}{4(v - b)^{4}} \right]$$
 (2)

where c_v is in $J-kg^{-1}-K^{-1}$.

The equation for entropy is

$$s = a_{4} \log_{e} T + b_{4}T + \frac{c_{4}T^{2}}{2} + \frac{d_{4}T^{3}}{3} - \frac{f_{4}}{2T^{2}} + R \log_{e} (V - b) - \left[\frac{B_{2}}{V - b} + \frac{B_{3}}{2(V - b)^{2}} + \frac{B_{4}}{3(V - b)^{3}} + \frac{B_{5}}{4(V - b)^{4}} - \frac{B_{6}}{\alpha} e^{\alpha V} \right] + Ke^{-KT} \left[\frac{c_{2}}{V - b} + \frac{c_{3}}{2(V - b)^{2}} + \frac{c_{5}}{4(V - b)^{4}} \right] + Y$$

$$(3)$$

where s is given in $J-kg^{-1}-K^{-1}$.

The enthalpy is given by a similar expression

$$h = a_{\mu}T + \frac{b_{\mu}T^{2}}{2} + \frac{c_{\mu}T^{3}}{3} + \frac{d_{\mu}T^{4}}{4} - 1.8 \frac{f_{\mu}}{T} + pV + \left[\frac{A_{2}}{V - b} + \frac{A_{3}}{2(V - b)^{2}} + \frac{A_{4}}{3(V - b)^{3}} + \frac{A_{5}}{4(V - b)^{4}} - \frac{A_{6}}{\alpha} e^{\alpha V}\right] + e^{-KT}(1 + KT)\left[\frac{C_{2}}{V - b} + \frac{C_{3}}{2(V - b)^{2}} + \frac{C_{5}}{4(V - b)^{4}}\right] + X$$
(4)

where h is given in $J-kg^{-1}$.

A general computer code was developed by using an existing code for CF_{ij} and it will compute all the thermodynamic variables, the coefficients for a

specific fluorocarbon being given. In addition, the program also calculates the specific heat at constant pressure c_p , ratio of specific heats $\gamma,$ isentropic exponent $\gamma_e,$ speed of sound a, and compressibility factor Z at the same thermodynamic point. The equations for these additional thermodynamic properties are

Specific heat at constant pressure:

$$c_{p} = c_{v} - T \frac{\left[(\partial p/\partial T)_{v} \right]^{2}}{\left(\partial p/\partial V \right)_{T}}$$
(5)

Specific heat ratio:

$$\gamma = \frac{c_{\mathbf{p}}}{c_{\mathbf{v}}} = 1 - T \frac{\left[(\partial p/\partial T)_{\mathbf{v}} \right]^2}{c_{\mathbf{v}} (\partial p/\partial \mathbf{v})_{\mathbf{T}}}$$
(6)

Speed of sound:

$$a = \left[\left(\frac{\partial p}{\partial \rho} \right)_{S} \right]^{1/2} = \left[\gamma \left(\frac{\partial p}{\partial \rho} \right)_{T} \right]^{1/2} = \left[-\gamma V^{2} \left(\frac{\partial p}{\partial V} \right)_{T} \right]^{1/2} = \left[\frac{V^{2}T}{c_{V}} \left[\left(\frac{\partial p}{\partial T} \right)_{V} \right]^{2} - V^{2} \left(\frac{\partial p}{\partial V} \right)_{T} \right]^{1/2}$$
(7)

Isentropic exponent:

$$\gamma_{e} = \left(\frac{d \log p}{d \log \rho}\right)_{s} = \frac{\rho}{p} \left(\frac{dp}{d\rho}\right)_{s} = \frac{a^{2}}{pV}$$
 (8)

Compressibility factor:

$$Z = \frac{pV}{RT} \tag{9}$$

where the partial derivatives in $\,c_{\,p}^{\,},\,\,\gamma$, and $\,a\,\,$ are

$$\left(\frac{\partial p}{\partial T}\right)_{V} = \frac{R}{V - b} + \frac{B_{2} - KC_{2}e^{-KT}}{(V - b)^{2}} + \frac{B_{3} - KC_{3}e^{-KT}}{(V - b)^{3}} + \frac{B_{4}}{(V - b)^{4}} + \frac{B_{5} - KC_{5}e^{-KT}}{(V - b)^{5}} + B_{6}e^{\alpha V} \tag{10}$$

$$\left(\frac{\partial p}{\partial V}\right)_{T} = -\frac{RT}{(V - b)^{2}} - \frac{2\left(A_{2} + B_{2}T + C_{2}e^{-KT}\right)}{(V - b)^{3}} - \frac{3\left(A_{3} + B_{3}T + C_{3}e^{-KT}\right)}{(V - b)^{4}} - \frac{4(A_{4} + B_{4}T)}{(V - b)^{5}} - \frac{5\left(A_{5} + B_{5}T + C_{5}e^{-KT}\right)}{(V - b)^{6}} + \alpha(A_{6} + B_{6}T)e^{\alpha V} \tag{11}$$

These expressions are limited to temperatures above the saturated vapor line. The saturation pressure in Pa as a function of saturation temperature in degrees kelvin is

$$\log_e p = A + \frac{B}{T} + C \log_e [T(1.8)] + DT + E\left(\frac{F - T}{T}\right) \log_e [F - T(1.8)] + GT^2 + LT^3$$
(12)

Equations (1) to (12) are also limited to temperatures below those at which dissociation occurs.

The following equations provide the thermodynamic properties for CBrF3 (ref. 9):

Equation of state:

$$p = \frac{A_2' + B_2'T - C_2'/T^3}{V^2} + \frac{A_3' + B_3'T}{V^2} + \frac{A_4' + B_4'T - C_4'/T^3}{V^4} + \frac{D_4'T}{V}$$
(13)

where p is given in Pa, V in m^3/kg , and T in K and where

$$A_2' = -6.70681 \times 10^{1}$$
 $B_2' = 1.06221 \times 10^{-1}$
 $C_2' = 2.707789 \times 10^{7}$
 $A_3' = 4.6056 \times 10^{-2}$
 $B_3' = -7.484318 \times 10^{-5}$
 $A_4' = -1.873886 \times 10^{-5}$
 $B_4' = 4.052713 \times 10^{-8}$
 $C_4' = -3.891135 \times 10^{1}$
 $D_{11}' = 5.581949 \times 10^{1}$

Specific heat at constant volume:

$$e_{v} = a' + b'T + e' + \frac{d'}{v_{T}^{\mu}} + \frac{e'}{v_{3T}^{\mu}}$$
 (14)

where c_{v} is in J/kg-K and T in K and where

$$a' = 7.322 \times 10^{1}$$

$$b' = 1.461053 \times 10^2$$

$$e' = -1.1313381 \times 10^{-3}$$

$$d' = 2.209712 \times 10^9$$

$$e' = -8.358194 \times 10^7$$

Entropy:

$$s = A' \log_e T + B'T + C'T^2 + \frac{D'}{VT^4} + \frac{E'}{V^3T^4} + F' \log_e V + \frac{G'}{V} + \frac{H'}{V^2} + \frac{I'}{V^3} + J'$$
 (15)

where s is in J/kg-K and where

$$A' = 7.32682 \times 10^{1}$$

$$C' = -5.663429 \times 10^{-4}$$

$$D' = -8.123486 \times 10^7$$

$$E' = 4.699288 \times 10^{1}$$

$$F' = 5.582002 \times 10^{1}$$

$$G' = -1.062235 \times 10^{-1}$$

$$H' = 3.7422337 \times 10^{-5}$$

$$I' = -1.3540801 \times 10^{-8}$$

$$J' = -2.6025689 \times 10^2$$

Enthalpy:

$$h = a'T + \frac{b'}{2}T^2 + \frac{c'}{3}T^3 + \frac{K'}{VT^3} + \frac{L'}{V^3T^3} - \frac{(M' + B_2')T}{V} + \frac{(N' - B_3')T}{V^2} - \frac{(F'/3 + B_4')T}{V^3} + P'$$
(16)

where h is in J/kg and where

$$K' = -1.353914 \times 10^8$$

$$L' = 1.096500 \times 10^2$$

$$M' = 1.341382 \times 10^2$$

$$N' = 6.908596 \times 10^{-2}$$

$$P' = 4.9827721$$

Saturation pressure:

$$\log_{e} p_{s} = \frac{A_{s}}{T^{2}} + \frac{B_{s}}{T} + C_{s} + D_{s}T + E_{s}T^{2}$$
(17)

where p_s is in Pa and where

$$A_s = -1.367130 \times 10^4$$

$$B_s = -9.975989 \times 10^2$$

$$C_s = 1.1161025 \times 10^1$$

$$D_s = -7.89102 \times 10^{-3}$$

$$E_{s} = 1.012772 \times 10^{-5}$$

The following expressions give the thermodynamic properties of CF_3 - CF_3 (ref. 10):

Equation of state:

$$p = \frac{RT}{V - \beta'} - \frac{\alpha T^{-1/2}}{V(V + \beta')}$$
 (18)

where p is given in Pa, V in m^3/kg , and T in K, and where

$$R = 60.24225 \text{ J/kg-K}$$

$$\beta \cdot = 0.0005133877 \text{ m}^3/\text{kg}$$

$$\alpha = 0.07657512 \text{ Jm}^3 - \text{K}^{1/2}/\text{kg}^2$$

Specific heat at constant volume:

$$c_v = a_1 + b_1 T + c_1 T^2 + d_1 T^3 + \frac{f_1}{T^2} + \frac{3\alpha T^{-3/2}}{4\beta'} \log_e \left(\frac{V + \beta'}{V}\right)$$
 (19)

where c_v is in J/kg-K

$$a_1 = 9.952795 \times 10$$

$$b_1 = 2.608545$$

$$c_1 = -1.926454 \times 10^{-3}$$

$$d_1 = 1.857347 \times 10^{-7}$$

$$f_1 = -3.473992 \times 10^5$$

Entropy:

$$s = a_1 \log_e T + b_1 T + \frac{c_1 T^2}{2} + \frac{d_1 T^3}{3} + -\frac{f_1}{2T^2} + R \log_e (V - \beta')$$

$$-\frac{\alpha}{2\beta'} T^{-3/2} \log_e \left(\frac{V + \beta'}{V}\right) + Y'$$
(20)

where s is in J/kg-K and Y' = 6.510304 kJ/kg-K

Enthalpy:

$$h = a_1 T + \frac{b_1 T^2}{2} + \frac{c_1 T^3}{3} + \frac{d_1 T^4}{4} - \frac{f_1}{T} + pV - \frac{3\alpha T^{-1/2}}{2\beta!} \log_e \left(\frac{V - \beta!}{V}\right) + X!$$
 (21)

where h is in J/kg and X' = 0.3688302 kJ/kg

Saturation pressure:

$$\log_{e} p_{s} = A_{1} + \frac{B_{1}}{T} + C_{1} \log_{e} T + D_{1}T + \frac{E_{1}(F_{1} - T)}{T} \left[\log_{e} (F_{1} - T) + 0.25527\right] + 0.52553$$
(22)

where

$$A_1 = 0.3762282521 \times 10^2$$

 $B_1 = -1.031833 \times 10^3$

 $C_1 = -0.1297816132 \times 10^2$

 $D_1 = 0.01321347$

 $E_1 = -0.537560386$

 $F_1 = 0.297317 \times 10^3$

where p_s is in Pa.

Transport Properties of the Gaseous Fluorocarbons

Experimental data for the viscosity and thermal conductivity of the tabulated fluorocarbons at a pressure of 1 atmosphere were curve fitted and are contained in reference 11. (Ref. 11 is currently being revised to correct typographical errors in many of the transport equations.) The temperature range of the data varies from fluorocarbon to fluorocarbon and cannot be given in general. As mentioned previously, this report does not contain transport data for all the listed fluorocarbons but this information is available in reference 11 if needed.

Viscosity. - The empirical equation is usually of the form

$$\mu^* = \frac{\sqrt{T}}{N + (P/T) + (Q/T^2)} \times 10^{-6}$$
 (23)

where μ^* is in newton-second per square meter and the constants N, P, and Q must be determined for each fluorocarbon. To obtain the viscosity at pressures other than 1 atmosphere, the residual viscosity is expressed as a function of the density, molecular weight, and critical constants of the substance (ref. 12) through a dimensional analysis treatment, and the correct dependencies are established by the use of experimental data. The dimensional analysis treatment (ref. 11) resulted in the following expression:

$$(\mu - \mu^*)\xi = \frac{\beta}{R^{1/6}} Z_c^m \rho_R^n$$
 (24)

Experimental high-pressure viscosities for the gaseous and liquid phases available in the literature for 14 polar substances including 5 fluorocarbons (CCl $_3$ F, CCl $_2$ F $_2$, CHCl $_2$ F, CHCl $_2$ F, CHClF $_2$, and C $_2$ Cl $_3$ F $_3$) were used (ref. 13) in conjunction with pressure-volume-temperature data to establish the constant β and the exponents m and n of equation (24). Plots of ($\mu - \mu^*$) ξ against ρ_R (ref. 13) were found to be essentially the same for all 14 substances; therefore, it was concluded that the exponent m of Z $_c$ in equation (24) was zero. The analytical representations of the residual viscosity correlation for the 14 polar substances (ref. 13) which should also apply to the fluorocarbons selected here are

$$(\mu - \mu^*)\xi = 16.56 \times 10^{-8} \rho_R^{1.111}$$

$$(\rho_R \le 0.10)$$

$$(\mu - \mu^*)\xi = 0.607 \times 10^{-8} (9.045\rho_R + 0.63)^{1.739}$$

$$(0.10 < \rho_R < 0.90)$$

$$(-10g_e [(\mu - \mu^*)\xi] = 10^{0.6439 - 0.1005\rho_R - \Delta} + 3$$

$$(0.90 < \rho_R < 2.6)$$

where Δ = 0 for 0.9 < ρ_R < 2.2 and Δ = 4.75 × 10 $^{-14}$ (ρ_R^{-3} - 10.65) for 2.2 < ρ_R < 2.6 and ξ = $\frac{11/6}{M^{1/2}p_c^{-2/3}}$ with μ in newton-second per square meter.

The viscosity equations for the fluorocarbons included herein are

 CCl_2F_2 :

$$\mu^* = \frac{\sqrt{T}}{0.75309 + (188.969/T) - (803.786/T^2)} \times 10^{-6}$$
 (26)

CBrF3:

$$\mu^* = \frac{\sqrt{T}}{0.63388 + (144.691/T) - (1087.52/T^2)} \times 10^{-6}$$
 (27)

CF 11:

$$\mu^* = \frac{\sqrt{T}}{0.64625 + (103.0/T) - (3.42714/T^2)} \times 10^{-6}$$
 (28)

CF3-CF3:

$$\mu^* = (12.778\sqrt{T} - 78.8) \times 10^{-7} \tag{29}$$

Thermal conductivity. The empirical equation cannot be given in general for the fluorocarbons at a pressure of 1 atmosphere. However, the thermal conductivity relationship can be extended to pressures other than 1 atmosphere in the same manner as the viscosity was. Residual thermal conductivities $k-k^*$ for CF_{ij} were obtained from experimental data and correlated with the corresponding reduced densities (ref. 14) to produce the following expression:

$$k - k^* = 7.19 \times 10^{-3} [\exp(\rho_R) - 1]$$
 (30)

where $k-k^*$ is in $Wm^{-1}-K^{-1}$. This equation represents the thermal conductivity of CF_{ij} in the dense gas region and should also be fairly representative of the thermal conductivity of the other fluorocarbons listed.

The thermal conductivity equations for the fluorocarbons included are ${\tt CCl}_2{\tt F}_2$:

$$k^* = \frac{2.3220 \sqrt{T}}{727.58 + (6.891667 \times 10^5/T) + (1.007883 \times 10^6/T^3)}$$
(31)

CBrF₃:

$$k^* = 1.73073 \left\{ 0.0041 + (1.6 \times 10^{-5})[T(1.8) - 459.67] \right\}$$

$$K^* = \frac{\sqrt{T}}{558.966 + (2.14363 \times 10^{5}) + (1.65119 \times 10^{7}) + (8.31701 \times 10^{9})}$$
(T > 600 K)
(32)

CF₁:

$$k^* = 1.73073 [(7.291 \times 10^{-3}) + (2.377 \times 10^{-5})(9/5T - 459.67)]$$
 (33)

CF₃-CF₃:

$$k^* = (9.591 \times 10^{-5})T - 0.01163$$
 (34)

CALCULATION PROCEDURE

In generating the thermodynamic and transport properties of the fluorocarbons by using the computer code given in appendix A, certain boundaries were put on the thermodynamic regime of interest in terms of temperature and volume. These boundaries encompass the range of current interest for these fluorocarbons but the equations are applicable over a much broader base and their limits may be found in reference 8. The boundaries used are

- (a) The saturation pressure line (eq. (12)) $p_S = f(T_S)$. The saturation volume was determined from the equation of state (eq. (1)) $p_S = f(T_S, V_S)$.
 - (b) The critical volume line.
- (c) The constant temperature line, in this case 588 K. This could be changed if so desired to give more information on a given fluorocarbon.
- (d) The constant volume line (procured from the simultaneous solution of the saturation pressure equation (eq. (12)) and the equation of state (eq. (1)). The other thermodynamic and the transport properties along the boundary are now easily calculated since they are expressed as a function of T and V.

To present the thermodynamic and transport property data in a convenient form, it is advantageous to calculate the properties at specified values of a given variable. A good example is the entropy which remains constant during a frequently occurring class of expansions in gas dynamic analysis. First, s

is determined at the critical point which gives a lower limit for the thermodynamic regime. The upper limit on s is determined by inserting the highest temperature and volume occurring on the boundaries of the specified regime into equation (3). The entropy is then divided into equal intervals between the upper and lower limits and set at the partition nearest the lower limit. The volume is set slightly above the critical value in order to avoid the large gradients and consequent convergence difficulties that occur along the critical volume line and the corresponding temperature calculated. This procedure gives an upper limit on the temperature for the specified value of the entropy. With the entropy held constant, the temperature is reduced at even intervals and the volume calculated at each temperature point until the saturated volume on the upper limit is exceeded. The transport properties and remaining thermodynamic variables which are functions of T and V are then calculated for the specified value of the entropy. This procedure is repeated at each entropy interval until the limits have been spanned.

RESULTS AND DISCUSSION

Equilibrium thermodynamic data and transport property data (when included) are presented in tables I to VI in dimensionless entropy s/R increments of 0.5 for CCl_3F , CCl_2F_2 , CBrF_3 , CF_4 , $\text{CF}_3\text{-CF}_3$, and C_4F_8 . The entropy range varies from fluorocarbon to fluorocarbon.

CF $_{\mu}$ (tetrafluoromethane) has been included in the tables because an error was discovered in the reference conditions (S_R and H_R) used in reference 5 which contained tabulated properties for CF $_{\mu}$. The correct reference conditions should have been $S_R = 3.542~J-kg^{-1}-K^{-1}$ and $H_R = 465710~J-kg^{-1}$. In addition, the enthalpy equation, equation (8), in reference 5 contains several erroneous terms and adds to the errors. A comparison was made between the two tables and an estimate of the errors in reference 5 was made. For values of specific volume V above 0.030 m³-kg⁻¹, it appears that the error is negligible. For values between 0.030 and 0.0055 m³-kg⁻¹, the errors in h and s are on the order of 0.5 percent. In the range between 0.0055 and 0.0026, the error increases up to a maximum of 4.5 percent which occurs at V = 0.0026 m³-kg⁻¹. All errors are positive (that is, values in ref. 5 are too large).

Pressure-enthalpy diagrams are presented in figures 1 and 2 for CBrF3 to show this feature of the code. Each of the figures contain lines of constant entropy and volume. In addition to having these lines in common, figure 1 contains constant temperature lines, and figure 2 contains lines of constant compressibility factor.

Binary mixtures of fluorocarbons and argon are being used as substitute gases to simulate high-temperature air flows in the flight Mach number range between 4 and 10. The properties of these mixtures can be easily computed, if it can be shown that they are thermally perfect (compressibility effects are negligible) in the range of interest. The tabulated thermodynamic properties of both CBrF3 and CCl₂F2 show that over the range of the experimental tests, T < 600 K and p < 0.5 atm, the compressibility factor Z remains very close to 1.00 and therefore pressure effects are small and can be neglected.

Thermally perfect species can have their thermodynamic properties, namely, s, h, and c_p , considered as functions of temperature only. By using the computer code of reference 6, the thermodynamic properties for equilibrium expansions of $CBrF_3$ -argon and CCl_2F_2 -argon mixtures (recommended for scramjet nozzle plume simulation (ref. 3)) were tabulated and are included in appendix C.

CONCLUDING REMARKS

Equations for the thermodynamic properties of gaseous fluorocarbons in chemical equilibrium have been generated by using as accurate an equation of state and curve fits of specific heat as are available. The equations along with available equations for the transport properties of the fluorocarbons have been built into a computer code. Thermodynamic and transport property data generated by this code are tabulated for ${\rm CCl}_3F$, ${\rm CCl}_2F_2$, ${\rm CBr}F_3$, ${\rm CF}_4$, ${\rm CF}_3$ - ${\rm CF}_3$, and ${\rm C}_4F_8$ and presented in a form which lends itself to a convenient gas dynamic analysis over thermodynamic regimes not previously examined.

In addition, it is shown that binary mixtures of fluorocarbon-argon can be considered thermally perfect over their current range of application for scram-jet nozzle exhaust plume simulation. This condition leads to a very quick method for calculating the thermodynamic properties of equilibrium expansions of these mixtures which, in turn, provide the chemical data for existing two-and three-dimensional flow-field computer codes.

Langley Research Center National Aeronautics and Space Administration Hampton, VA 23665 January 27, 1977

COMPUTER CODE FOR CALCULATING THERMODYNAMIC PROPERTIES

OF SELECTED FLUOROCARBONS

A Fortran IV Control Data Series 6000 computer code was developed for evaluating the thermodynamic properties of gaseous fluorocarbons in chemical equilibrium. The computer code calculates the following thermodynamic variables: entropy, temperature, volume, pressure, enthalpy, specific heat at constant pressure, specific-heat ratio, speed of sound, isentropic expansion exponent, compressibility factor, viscosity, and thermal conductivity.

The computer code itself is well documented, straightforward, and the user inputs are minimal. Provision has been included to allow the addition of other fluorocarbons governed by the same set of general equations provided the user supplies the necessary coefficients for the equations. An output option exists that allows for output of the thermodynamic properties in either SI or U.S. Customary Units. A listing of the program follows.

PROGRAM LISTING

```
1
                                     PROGRAM FREONS (INPUT, DUTPUT, TAPE5=INPUT, TAPE6=DUTPUT)
                                    PROGRAM FREDNS CONTPOLS COMPUTATION OF GAS PROPERTIES FOR THE FULLOWING FREON COMPOUNDS WHICH CAN BE SELECTED BY INPUTING THE APPROPRIATE NUMBER CODE. A MINUS PRECEDING THE CODE WILL GIVE THE DUTPUT IN US UNITS, OTHERWISE SI UNITS ARE OUTPUT.
   5
                         C
                                          ****** NOTE: AT THIS TIME THE OPTIONS FOR FREDN 13 AND ******

****** FREDN 22 AKE NOT #ORKING PROPERLY DUE TO ERRORS ******

******* IN THE THEKMUDYNAMIC CONSTANTS. ONCE CORKECTED ******
 10
                                           ***** THESE OPTIONS WILL BE AVAILABLE.
                                             CHUCAMO NOBAS
                                                                                                        NUMBER CODE (NAME)
 15
                                            FFEON 11 (CCL3F)
                                            FRECN 12 (CCL2F2)
FREON 13 (CCLF3)
                                                                                                                      3
                                            FFEON 13B1 (CBxF3)
FREON 14 (CF4)
                                            FREON 21 (CHCL2F)
 20
                                            FREON 22 (CHCLF2)
FREON 23 (CHF3)
                                             FREON 113 (CCL2FCCLF2)
                                            FREON 114 (CCLF2CCLF2)
FREON 116 (CF3CF3)
                                                                                                                    10
 22
                                                                                                                    11
                                            FREDN C318 (C-C4F8)
                                                                                                                    12
                                             OTHER
                                                                                                                    13
                                     A PROVISION HAS BEEN ADDED TO ALLOW ADDITIONAL COMPOUNDS PROVIDED
                                    THE USER SUPPLIES THE THERMODYNAMIC CONSTANTS FOR THE EQUATIONS. CHECK THE REPORT TO SEE IF THE COMPOUND IS COMPATIBLE WITH THESE
 36
                                    FOUATIONS. THIS OPTION IS SELECTED BY INPUTING NUMBER CODE 13.
                                    PLOT OUTPUT IS ALSO AVAILABLE TO THE USER AND IS CONTROLLED BY THE INPUT PARAMETER CALLED NOPLOT. NOPLOT IS INPUT ON THE CAPD CONTAINING THE NUMBER CODE. FOUR OPTIONS ARE AVAILABLE
35
                                    TO THE USER.
                                            PLOT OPTION
                                                                                                       NOPLOT VALUE
                        0000
40
                                            NO PLOT
                                        LINES OF S/K ONLY
S/R LINES + OTHERS
LINES OTHER THAN S/R
                        Ċ
45
                                   TO OBTAIN PLOTS OTHER THAN LINES OF CONSTANT S/R THE USER MUST INPUT THE APPROPRIATE TABULAR DATA FOR EACH SET OF LINES. THIS IS DONE VIA NAMELIST N2 AND MUST BE INPUT FOR EACH SET OF LINES DESIRED. THE FOLLOWING TABULAR DATA COMPRISES THE VARIOUS INPUTS: V TABLE (VTAB IN M3/KGM), T TABLE (TTAB IN DEGK), Z TABLE (ZTAB NONDIMENSIONAL) A TABLE (ATAB IN M/SEC), AND G TABLE (GTAB NONDIMENSIONAL). IF UNIN EQUALS TWO IN NAMELIST N2 THEN US UNITS MAY BE INPUT;
50
                                    V-FT3/LB, T-DEGR, A-FT/SEC.
55
                                   INDICATE WHICH LINES ON THE PLOT ARE DESIRED BY SETTING THE PLOT FLAGS TO ONE. NAMELIST PLOTIN IS USED TO INPUT THE FLAG CONDITIONS AND MUST BE READ BEFORE NAMELIST N2. ( CONSTANT VOLUME LINES, PLOTY, CUNSTANT TEMPERATURE LINES, PLOTT, CUNSTANT COMPRESSIBILTY LINES, PLOTZ, LINES OF CONSTANT ALSPEED OF SOUND),
60
                                   PLOTA, AND CONSTANT GAMMA LINES, PLOTG ). A LISTING OF THE PLOT COMPUTATIONS IS AVAILABLE IF PLOTOUT IS SET EQUAL TO ONE.
                                    DIMENSION VOLTAB(28), DELTAB(28)
                                   DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
DIMENSION FRENAME(26)
65
                                    COMMON JA60A, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
                                    COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                                    COMMON CV, PPT, PPV, NAME, NAME1, NAME2
                                    COMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
70
                                  COMMON VG(2),AG(2),SG(2),ZG(2),PG(2),VGN;I,N,JJ,GG(2),ASQ,AI,SI,ZI
COMMON PS,NN,XPLOT(99),YPLOT(99),GI,GTAB(99),NOG,G
COMMON CAPA,CAPB,CAPC,CAPD,CAPE,CAPF,CAPG,CAPH,CAPL,ERR
COMMON AEI,ALPHA,AVI,A2,A3,A4,A5,A6,B2,B2T,B3,B3T,B4,B4T,
184T4,B5,B5T,B6,B6T,C2,C2E,C3,C3E,C5,C5E,EAVI,EMKTI,
75
                                  2H, J, JB6OA, JK, JR, JVI, J2, J4, K, KTI, OVIB, OVIB2, OVIB3, OVIB4, OVIB5, P,
                                  3R,RTI,S,SAA,SB,SBB,SC,SD,SF,SUM10,SUM11,SUM2,SUM3,SUM33,SUM34,
                                  4SUM35,SUM4,SUM5,SUM6,SUM9,T1,T12,T13,T14,V1,VIMB,VIMB2,VIMB22
                                   CUMMUN VIMB6, UVIB6, SUM36, SUM37, SUM38, SUM39, SUM4C, SUM41, SUM42,
```

```
1SUM43, VI2, JVI2, A, Z, VIMB3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
       REAL K,KTI,J,JVI,J860A,J2,J4,JK,JR
REAL JVI2
       REAL JAGDA
       COMMON PL (99). HL (99). PU (99). HU (99)
       COMMON TT(99), VT(99), ST(99), ZT(99), AT(99), GT(99), PT(99), HT(99)
       COMMON TA(99), VA(99), SA(99), ZA(99), AA(99), GA(99), PA(99), HA(99)
COMMON TL(99), VL(99), SL(99), ZL(99), AL(99), GL(99), NDL, TLIM
       COMMON TU(99), VU(99), SU(99), ZU(99), AU(99), GU(99), NOU, TUIM
       COMMON LNCT
       COMMON/BOUND/FLAGOUT, NOENT
       COMMON/FNAME/FNAM(26)
       DATA FRENAME/6HFREON , 2H11, 6HFREON , 2H12, 6HFREON , 2H13, 6HFREON ,
      14H13B1,6HFREDN ,2H14,6HFREDN ,2H21,6HFREON ,2H22,6HFREON ,2H23,
      ,4HC316, 26HFREON ,3H114,6HFREON ,3H116,6HFREON ,4HC318
      36HOTHER . 3HGAS/
       DATA VOLTAB/0.,.12,.12001,.15,.15001,.3,.30001,.5,.50001,1.,
      11.00001,2.,2.00001,4.,4.00001,6.,6.00001,9.,9.00001,15.,15.00001,
      225., 25.00001, 50., 50.00001, 100., 100.00001, 3000./
       DATA DELTAB/.02,.02,.03,.03,.05,.05,.1,.1,.25,.25,.5,.5,.1.,1.,2.,
      12.,3.,3.,6.,6.,10.,10.,25.,25.,50.,50.,100.,100./
       NAMELIST/N1/NOS, STAB, VDLTAB, DELTAB, ERR, VIG,
      1CAPA, CAPB, CAPC, CAPD, CAPE, CAPF, CAPG, CAPH, CAPL, CAPX, CAPY,
      2J, R, A2, B2, C2, A3, B3, C3, A4, B4, A5, B5, C5, A6, B6, SB, K, ALPHA, SAA, SBB, SC,
     3SD,SF,TC,PC,VC,EM,FT,CT,PSTOP,PLOTOUT
NAMELIST/N2/NOV,VTAB,NOT,TTAB,NOZ,ZTAB,NOA,ATAB,NOG,GTAB,UNIN
       NAMELIST/PLOTIN/PLOTY, PLOTT, PLOTZ, PLOTA, PLOTG, PLOTOUT
1000 FORMAT(215)
1050 FORMAT(F3.0)
1100 FORMAT (1H1,10X,*UNIO=+,F3.0)
1150 FORMAT(1H1,43X,*OUTPUT UNITS*,//,20X,*VARIABLE*,21X,*SI*,18X,
     1*US*,//18X,*TEMPERATURE,T*,14X,*DEGREE KELVIN*,6X,
     1*DEGREE RANKINE*;//,18X,
2*VOLUME,V*,20X,*M*,2H**,*3/KGM*,13X,*FT*,2H**,*3/LB*,//,18X,
     2*PRESSURE, P*, 20x,
     3*ATM*,15X,*LBF/IN*,2H**,*2*,//,18X,*ENTHALPY,H*,15X,
     3*NONDIMENSIONAL*,
     410X, *BTU/LB*, //, 18X, *SPEED OF SOUND, A*, 14X, *M/SEC*, 14X, *FT/SEC*,
     5//,18x, *SPECIFIC HEAT, CP*, 9x, *NONDIMENSIONAL *, 5x, *BTU/(LB-DEGREE R
     6)*,//,18x,*GAMMA*,20x,*NONDIMENSIONAL*,6x,*NONDIMENSIONAL*,//,18x,
     7*ISENTROPIC EXPONENT, G*, 4X, *NONDIMENSIONAL*, 6X, *NONDIMENSIONAL*,
     8//, 18x, *COMPRESSIBILITY, Z*, 8x, *NONDIMENSIONAL*, 6x,
     9*NONDIMENSIONAL*,//,18x,*VISCOSITY,MU*,17x,*N/M*,2H**,*2*,12x,
A*LB/(FT-SEC)*,//,18x,*CONDUCTIVITY,K*,11x,*W/(M*DEGREE K)*,3x,
B*BTU/(SEC-FT-DEGREE R)*,//,18x,*PRANDTL NUMBER,PR*,8x,
C*NONDIMENSIONAL*,6x,*NONDIMENSIONAL*,//,18x,*ENTROPY*,18x,
     D+NONDIMENSIONAL+,5X,+BTU/(LB-DEGREE R)+)
1160 FORMAT(1H1,////,20X,*DELTT TOO SMALL-ARRAY GVERFLOW*)
1170 FORMAT(1H1,////,20X,*ARRAY OVERFLOW CHECK DELTV*)
1200 FORMAT(1H1,43X,*OUTPUT IN SI UNITS FOR *,A6,A4,/,53X,*S/R=*,
1F7.4,//,5X,*T*,10X,*V*,9X,*P*,10X,*H*,9X,*A*,
     18x, *CP/R*, 5x, *GAMMA*, 6x, *G*, 7x, *Z*, 11x, *MU*, 9x, *K*, 8x, *NPR*,/}
1250 FORMAT(1H1,43X,*OUTPUT IN US UNITS FOR *, A6, A4, /, 53X, *S/R=*,
     1F7.4,//,5X,*T*,10X,*V*,9X,*P*,10X,*H*,9X,*A*,
     18X, +CP/R+, 5X, +GAMMA+, 6X, +G+, 7X, +Z+, 11X, +MU+, 9X, +K+, 8X, +NPR+,/)
1300 FORMAT(1H1,52X,4HS/R=,F7.4,//,5X,*T*,10X,*V*,9X,*P*,10X,*H*,9X,*A*,
     18x, *CP/R*, 5x, *GAMMA*, 6x, *G*, 7x, *Z*, 11x, *MU*, 9x, *K*, 8x, *NPR*,/)
1350 FORMAT( //,53x,4HS/R=,F7.4,//,5x,+T*,10x,+V*,9x,+P*,10x,+H*,9x,+A*,
18x,*CP/R*,5x,*GAMMA*,6x,*G*,7x,*Z*,11x,*MU*,9x,*K*,8x,*NPR*,/)
1400 FORMAT(1H1.//)
1600 FORMAT(1H1,10X,*ERROR IN GAS SELECTION, TRY AGAIN*)
3000 FORMAT(1H1,///,10X,*INTERPOLATION HAS FAILED CHECK MONOTONICITY*,
     1 + OF THE SATURATION PRESSURE LINE*)
      DO 50 N=1,26
      FNAM(N) = FRENAME(N)
  50 CONTINUE
      READ(5,1000) NAME, NOPLOT
      If(EDF(5)) 910,75
  75 CONTINUE
      IF(NAME.EQ.3.OR.NAME.EQ.-3.OR.NAME.EQ.7.OR.NAME.EQ.-7) GO TO 905
      NAMELIST OUTPUT OPTION - SET INOUT EQUAL ONE. THIS IS AN INTERNAL
      SETTING AND USUALLY SET TO ONE.
      NOENT=0
      INDUT=1
```

```
PLOTOUT=1
                IF (NOPLOT) 100,110,120
155
           С
                NO PLOT DESIRED
           С
           110 SFLAG=0.0
                66 TO 140
160
                PLOT OF S/R + OTHER LINES DESIRED
                       ***********
            100 SFLAG=1.0
                NOPLOT=1
165
                GO TO 140
            120 IF(NOPLOT.GT.10) GO TO 130
                PLOT OF LINES OTHER THAN SIR DESIRED
170
                SFLAG=0.0
                NOPLOT = 1
            GO TO 14C
           C
               PLGT OF S/R LINES ONLY
175
            **************
            130 SFLAG=1.0
                NUPL OT = 0
            140 CONTINUE
                UNID=1.
180
                IF(NAME.GT.O) GO TO 150
           Ĉ
            ************************
            CUTPUT IN US UNITS DESIRED
                NAME=-NAME
185
            UNID#2.
150 IF(NAME.GT.13) GD TU 900
                IF (NAME. EQ. 13) GU TO 160
                NAME2=2*NAME
                NAME1=NAME2-1
190
                CALL CNSTS
            GO TO 170
160 READ (5,1050) UNIO
           С
                CODE 13 HAS BEEN SELECTED AND THE USER WILL SUPPLY THE THERMODYNAMIC
                CONSTANTS AND OUTPUT OPTION. THE CONSTANTS ARE INPUT THROUGH A
195
                NAMELIST FORMAT AND ARE LISTED IN THE NAMELIST NI AND THE REPORT.
                UNID CONTROLS THE UNITS ASSOCIATED WITH THE TABULAR OUTPUT
                IF UNIO=1 THE OUTPUT IS IN SI UNITS IF UNIO=2 THE OUTPUT IS IN US UNITS
200
           C
           C
                IF(INDUT.EQ.1) WRITE (6,1100) UNIO
                READ(5,N1)
            170 IF (INDUT. EQ. 1) WRITE (6, N1)
205
                WRITE(6,1150)
                14=-1
                IB = -1
                IC = -1
                TD=-1
210
                IE=-1
                IF(SFLAG.EQ.O.O.AND.NOPLOT.EQ.O) GO TO 175
                CALL PSEUDO
CALL LEROY
            175 CONTINUE
215
                JB60A=0
                IF (ALPHA.NE.O) JB60A=J+B6/ALPHA
                JA6BA=0
                IF(ALPHA.NE.O)JA6BA=J*A6/ALPHA
220
                J2=J/2.
                J4=J/4.
                JK=J*K
                JR=J+R
                VG(1)=VIG
                NN=0
DELTT=(TC-(FT+30.))/50.
225
                IF(DELTT.LT.2.0) DELTT=2.0
                N = 1
```

```
C *********************
                        THIS PORTION OF THE PROGRAM COMPUTES THE BOUNDARY LIMITS FOR THE GAS PROPERTIES, THESE INCLUDE THE SATURATION PRESSURE LINE, CONSTANT TEMP LINE, AND CONSTANT
230
                        MIN. VOLUME LINE
235
                 r
                        BOUNDARY OUTPUT OPTION, SET FLAGOUT EQUAL ONE. THIS IS AN INTERNAL SETTING AND IS USUALLY SET TO ONE.
                        FLAGUUT=1.
246
                        TTAB(N)=TC
                        IF (FLAGOUT.EQ.1.0) CALL BOUNDRY(1)
                   180 CALL PLINE
                        LNCT=LNCT+1
                        IF(FLAGBUT.EQ.1.0.AND.LNCT.GT.39) CALL BOUNDRY(1)
245
                        SATURATION PRESSURE LINE GALCULATION
                        TL(N)=TI
                        VL(N)=VI
256
                        SL(N)=S
                        2 L (N) = Z
                        \Delta I (N) = \Delta
                        GL(N)=G
                        PL(N)=P
255
                        HL (N) = H
                        IF(P-PSTOP)200,190,190
                   190 N=N+1
                        IF (N.GT.99) GO TO 192
                  GO TO 194
192 WRITE(6,1160)
GO TO 910
194 CONTINUE
260
                        TTAB(N) = TTAB(N-1) - DELTT
                        GO TO 180
265
                   200 NOL=N-1
                        NN=NN-1
                        IF (SFLAG.NE.O.O.UR.NUPLOT.NE.O) CALL PLOT
                        NN = 0
                       DELTT= (CT-TL(NOL))/50.
270
                        N = 1
                        TTAB (N) = TL (NOL)
                        VI=VL(NOL)
                        CALL VVAR
                        IF(FLAGOUT.EQ.1.0) CALL BOUNDRY(2)
275
                   210 TI=TTAB(N)
                       CALL TVAR
                        LNCT=LNCT+1
                        IF(FLAGOUT.EQ.1. U. AND. LNCT.GT. 39) CALL BUUNDRY(2)
280
                       MAXIMUM VOLUME LINE CALCULATION
                       TU(N)=TI
285
                       VU(N)=VI
                       SU(N)=S
                        711(N)=7
                       \Delta U(N) = \Delta
                       GU(N)=G
                       PU(N)=P
290
                       HU(N)=H
                        IF(ABS(TI-CT).LE..1) GO TO 230
                   220 N=N+1
                       IF(N.GT.99) GD TO 192
TTAB(N)=TTAB(N-1)+DELTT
295
                       GD TO 210
                  230 NOU=N
                       IF(SFLAG.NE.O.O.OR.NOPLOT.NE.O) CALL PLOT
                       NN=0
                       N=1
300
                       VTAB (N)=VU(NOU)
                       TI=TU(NOU)
                       CALL TVAR
IF(FLAGOUT.EQ.1.0) CALL BOUNDRY(3)
```

```
305
               (A) BATV=IV CAS
                   CALL VVAR
                   LNCT=LNCT+1
               IF(FLAGOUT.EQ.1.0.ANp.LNCT.GT.39) CALL BOUNDRY(3)
310
             C
                   CUNSTANT TEMPERATURE LINE CALCULATION
                   TT(N)=TI
                   VT(N)=VI
315
                   ST(N)=S
                   ZT(N)=Z
                   AT(N)=A
                   GT(N)=G
                   PT(N)=P
320
                   HT(N)=H
                   IF(VI-VL(1))260,263,250
               250 N=N+1
                   IF(N.GT.99) GO TO 252
                   GU TO 254
325
               252 wRITE(6,1170)
               GG TG 910
254 CONTINUE
                   CALL IUNI(28,28, VOLTAB, 1, DELTAB, 1, VTAB(N-1), DELTV, IA, IERR)
330
                   VTAB (N) = VTAB (N-1)-DELTV
                   I+(VTAB(N)-VL(1))270,240,240
               270 VTAB(N)=VL(1)
               GG TO 240
260 NOLL=N
335
                   IF(SFLAG.NE.O.O.JR.NOPLOT.NE.O) CALL PLOT
                   NN=0
                   DELTT=(TT(NOLL)-TC)/50.
                   N=1
                   TTAB(N)=TT(NOLL)
340
                   VI=VT(NOLL)
                   CALL VVAR
                   IF(FLAGOUT.EQ.1.0) CALL BOUNDRY(4)
               280 TI=TTA3(N)
                   CALL TVAR
345
                   LNCT=LNCT+1
                   IF(FLAGDUT.EQ.1.0.AND.LNCT.GT.39) CALL BOUNDRY(4)
                   MINIMUM VOLUME LINE CALCULATION
350
             C
               ***********************
                   TA(N)=TI
                   VA(N)=VI
                   SA(N)=S
                   ZA(N)=Z
355
                   AA (N) = A
                   GA (N) = G
                   PA(N)=P
                   HA(N)=H
                   IF(TI-TC) 300,300,290
360
               290 N=N+1
                   IF(N.GT.99) GO TO 192
                   TTAB(N)=TTAB(N-1)-DELTT
                   GB TB 280
               300 NOUU≠N
365
                   IF(SFLAG.NE.O.O.OR.NJPLOT.NE.O) CALL PLOT
                   DELT=90./5.
                   IF(NDS.EQ.0) GO TO 470
                   LNCT=0
                   NOENT=1
370
             С
                   THE FOLLOWING LOOP DUTPUTS THE GAS PROPERTIES FOR THE SPECIES UNDER CONSIDERATION FOR GIVEN VALUES OF S/R
                   00 460 I=1,NOS
                   375
                   IF(I-1)340,310,340
               310 IF(UNIO.GT.1.) GO TO 320 WRITE(6,1200) FRENAME(NAME1), FRENAME(NAME2), STAB(I)
                                                                                  su estata
380
               320 WRITE(6,1250) FRENAME(NAME1), FRENAME(NAME2), STAB(I)
```

```
330 LNCT=7
                           GO TO 373
                      340 IF(LNCT-25) 360,350,350
                      350 KRITE(6,1300) STAB(1)
 385
                           LNCT=5
                           GC TO 370
                      365 WRITE(6,1350)STAB(I)
                           LNCT=LNCT+7
                      370 CONTINUE
 390
                           IF(UHIO.LE.1.) STAB(I)=STAB(I)/44.289180
                           1F(STAB(I)-SL(NJL))380,380,390
                      380 CALL IUNI(99,NOL,SL,1,TL,1,STAB(I),TST,IB,IERR)
                           TR = - 1
                           CALL IUNI(99, NOL, SL, 1, VL, 1, STAB(I), VST, IC, IERR)
 395
                           10=-1
                           GU TO 400
                      390 CALL IUNI(99, NOU, SU, 1, TU, 1, STAB(I), TST, ID, IERR)
                           ID=-1
                           VST=VII(1)
 400
                     400 IF(STAB(I)-SA(1))410,410,420
                      41J CALL IUNI(99, NOUU, SA, 1, TA, 1, STAB(1), TND, IE, IERR)
                          IE=-1
GO TO 430
                     423 TND=TT(1)
                     430 L=1
TTAE(L)=TST
465
                     440 L*L+1
                           TTAB(L)=TTAB(L-1)+DELT/
                           IF(TTAB(L)-TND)440,450,450
410
                     450 TTAB(L)=TND
                           NUT=L
                           VG(1)=VST
                           SI=STAB(I)
410
                  С
                           THE REMAINDER OF THE MAIN PROGRAM CONTROLS THE VARIOUS PLOTS
                           AVAILABLE TO THE USER
                  C
                         ****************
420
                  C
                           PLOTS LINES OF CONSTANT S/R
                           CALL SLINE
                          IF (SFLAG.NE.1.) GD TO 460
425
                          CALL PLOT
                     460 CONTINUE
                     47) CONTINUE
                          IF(NOPLOT.EQ.O) GO TO 890
                          PLOT OUTPUT IS CONTROLLED BY THE NAMELIST PLOTIN WHICH MUST PRECEED THE NZ NAMELISTS - ONE NZ NAMELIST IS REQUIRED FOR EACH LINE
430
                  C
                          OF THE PLOT. SETTING PLOTOUT EQUAL TO ONE IN PLOTIN WILL OUTPUT
                  C
                          THE PLOT COMPUTATIONS (THIS IS USUALLY NOT DONE UNLESS DEBUGGING
                  c
                          IS DESIRED.
                  Ċ
4,3'5
                          NAMELIST N2 CONTAINS THE TABULAR PLOT INPUT AND MUST BE PROVIDED BY THE USER. N2 INPUTS FOLLOW THE PLOT INPUTS WHICH FOLLOW THE N1 INPUTS IF CODE 13 HAS BEEN SELECTED. THE USER INPUTS THE NUMBER OF LINES DESIRED AND THE INCREMENTS BETWEEN THEM:

NOTE : THE VALUES MUST BE WITHIN THE
440
                  С
                          NOTE: THE VALUES MUST BE WITHIN THE
BOUNDARIES OF THE COMPUTATION. THEREFORE IT IS RECOMMENDED THAT
THE USER FIRST OBTAIN THE BOUNDARY VALUES THROUGH THE BOUNDARY
OUTPUT OPTION TO HELP IN THE SELECTION OF THESE VALUES. IF UNIN
EQUAL TWO IN N2 THEN THE INPUTS ARE IN US UNITS."
                  C
                  c
                  C
                         **************
445
                          READ (5. PLOTIN)
                          WRITE(6,1400)
                          IF(INOUT.EQ.1) WRITE(6, PLOTIN)
                          IF(PLOTV.EQ.0) GO TO 510
450
                          DO 471 II=1,99
                          VTAB(II)=0.0
                          TTAB(II)=0.0
                          ZTAB(II)=0.0
                          ATAB(II)=0.0
455
                          GTAB(II)=0.0
                    471 CONTINUE
```

```
330 LNCT=7
   GO TO 370
340 IF(LNCT-25) 360,350,350
   350 WRITE(6,1300) STAB(I)
        LNCT=5
   GO TO 370
360 WRITE(6,1350)STAB(I)
        LNCT=LNCT+7
   370 CONTINUE
        IF(UNIO.LE.1.) STAB(I)=STAB(I)/44.289180
IF(STAB(I)-SL(NOL))380,380,390
   380 CALL IUNI(99, NOL, SL, 1, TL, 1, STAB(1), TST, IB, IERR)
        IB =-1
        CALL IUNI(99, NOL, SL, 1, VL, 1, STAB(1), VST, IC, IERR)
        IC=-1
        GO TO 400
   390 CALL IUNI(99, NOU, SU, 1, TU, 1, STAB(1), TST, ID, IERR)
       ID = -1
       vs-vu(1) IF(UNIO.LE.1.) STAB(I) = STAB(I)/(EM/1.987)
  400 IF(STAB(I)-SA(1))410,410,420
                                                                                   are worth
  410 CALL IUNI(99, NOUU, SA, 1, TA, 1, STAB(I), TND, IE, IERR)
       IE =-1
  GD TD 430
420 TND=TT(1)
       GD TO 430
  425 CALL IUNI(99, NOL, SL, 1, TL, 1, STAB(I), TND, Id, IERR)
       18=-1
       IF(TND.EQ.0) WRITE(6,3000)
       IF(TND.EQ.0) GD TD 910
  430 L=1
       TTAB(L)=TST
  440 L=L+1
       TTAB(L)=TTAB(L-1)+DFLT
       IF(TTAB(L)-TND)440,450,450
  450 TTAB(L)=TND
       NOT=L
       VG(1)=VST
       NN = 0
       SI=STAB(I)
C ********
       THE REMAINDER OF THE MAIN PROGRAM CONTROLS THE VARIOUS PLOTS
С
       AVAILABLE TO THE USER
                                   ****************
C *******************************
       PLOTS LINES OF CONSTANT S/R
       CALL SLINE
       IF(SFLAG.NE.1.) GO TO 460
       CALL PLOT
  460 CONTINUE
  470 CONTINUE
       IF(NOPLOT.EQ.O) GO TO 890
      PLOT OUTPUT IS CONTROLLED BY THE NAMELIST PLOTIN WHICH MUST PRECEED THE N2 NAMELISTS - ONE N2 NAMELIST IS REQUIRED FOR EACH LINE
       OF THE PLOT. SETTING PLOTOUT EQUAL TO ONE IN PLOTIN WILL OUTPUT
       THE PLOT COMPUTATIONS (THIS IS USUALLY NOT DONE UNLESS DEBUGGING
       IS DESIRED.
       NAMELIST NZ CONTAINS THE TABULAR PLOT INPUT AND MUST BE PROVIDED
      BY THE USER. NZ INPUTS FOLLOW THE PLOT INPUTS WHICH FOLLOW THE NI INPUTS IF CODE 13 HAS BEEN SELECTED. THE USER INPUTS THE NUMBER OF LINES DESIRED AND THE INCREMENTS BETWEEN THEM.
                                         NOTE : THE VALUES MUST BE WITHIN THE
      BOUNDARIES OF THE COMPUTATION. THEREFORE IT IS RECOMMENDED THAT THE USER FIRST OBTAIN THE BOUNDARY VALUES THROUGH THE BOUNDARY DUTPUT OPTION TO HELP IN THE SELECTION OF THESE VALUES. IF UNIN EQUAL TWO IN N2 THEN THE INPUTS ARE IN US UNITS."
      READ(5, PLOTIN)
      WRITE(6,1400)
      IF(INDUT.EQ.1) WRITE(6,PLOTIN)
       IF(PLOTV.EQ.O) GO TO 510
      DO 471 II=1,99
      VTAB(II)=0.0
       TTAR(II)=0.0
       ZTAB(II)=0.0
       0.0-(II)8ATA
       GTAB(II)=0.0
 471 CONTINUE
```

--

```
C *********************************
               INPUT NOV AND VTAB FOR V LINE PLOT
           C
          С
460
                FEAD (5, N2)
                wRITE(6,1400)
                IF(INGUT.EQ.1) WRITE(6,N2)
                Du 500 I=1,NOV
                IF(UNIN.NE.2.0) VTAB(1)=VTAB(1)/.362427962
462
                CALL IUNI(99, NOL, VL, 1, TL, 1, VTAB(I), TST, IB, IERR)
                IR = -1
                TND=TT(1)
                1 = 1
                TTAB(L)=TST
470
            48J L=L+1
                TTAB(L)=TTAB(L-1)+JELT
                IF (TTAB (L)-TND)480,480,490
            495 TTAB(L)=TND
                NOT=L
475
                0 = 4 \text{ vi}
            *******************
          C PLOTS LINES OF CONSTANT V
               CALL VLINE
            5CU CALL PLOT
460
            510 CONTINUE
                IF(PLOTT.E0.0) GU TO 580
               LO 511 II=1,79
VTAB(II)=0.0
485
                O.C=(II)BATT
                ZTAB(II)=U.O
                ATAB(II)=0.0
                GTAB(II)=0.0
            511 CONTINUE
490
               INPUT NOT AND ITAB FOR T LINE PLOT
           KEAD(5,N2)
                WKITE(6,1400)
495
                IF(INOUT.EQ.1) WRITE(6,N2)
               DC 570 N=1,NJT
IF(UNIN.NE.2.G) TTAB(N)=TTAB(N)/,5555
IF(TTAB(N)-TL(1))530,520,520
            520 VST#VL(1)
500
                GO TO 540
            530 CALL IUNI (99, NOL, TL, 1, VL, 1, TTAB(N), VST, IB, IERR)
                18--1
            540 L=1
                VTAB(L)=VST
565
            554
               1 = 1 + 1
                CALL IUNI(28,28, VDLTAB, 1, DELTAB, 1, VTAB(L-1), DELTV, IC, IERR)
                IC=-1
                VTAB(L)=VTAB(L-1)+OELTV
                IF(VTAB(L)-VL(NOL))550,550,560
510
            56C VTAB(L)=VL(NOL)
                NOV=L
                NNEO
            ************************
          515
                CALL TLINE
            570 CALL PLOT
            580 CONTINUE
                IF(PLOTZ.EQ.O) GO TO 670
520
                DO 581 II=1,99
                VTAB(II)=0.0
                TTAB(II)=0.0
                ZTAB(II)=0.0
                ATAB(II)=0.6
525
                GTAB(II)=0.0
            581 CONTINUE
                INPUT NOZ AND ZTAB FUR Z LINES
            530
                READ(5,N2)
                WRITE(6,1400)
                IF(INDUT.EQ.1) WRITE(6,N2)
```

```
DO 660 I=1,NOZ
IF(ZTAB(I)~ZU(1))600,590,590
590 IF(ZTAB(I)~ZU(NOU))610,620,620
 535
                600 CALL IUNI (99, NOL, ZL, 1, VL, 1, ZTAB(I), VND, IB, IERR)
                    18=-1
                    GC TO 630
                610 VND=VU(1)
 540
                    GO TO 630
                620 CALL IUNI (99, NOLL, ZT, 1, VT, 1, ZTAB (I), VND, IC, IERR)
                    TC = -1
                630 CALL IUNI (99, NDUU, ZA, 1, TA, 1, ZTAB (I), TST, ID, IERR)
                    ID=-1
545
                    VST=VA(1)
                   VG(1)=TST
                   VTAB(L)=VST
               640 L=L+1
556
                   CALL IUNI(28,28, VOLTAB, 1, DELTAB, 1, VTAB(L-1), DELTV, IE, IERR)
                   IE=-1
                   VTAB(L)=VTAB(L-1)+JELTV
                   IF(VTA3(L)~VND)040,650,650
               650 VTAB(L)=VND
                   NOV=L
555
                   NN=0
               **********************************
                   PLOTS LINES OF CONSTANT Z
             C *********************
                                              ***********
               CALL ZLINE
660 CALL PLOT
670 CONTINUE
560
                   IF(PLOTA.EQ.O) GO TO 740
DO 671 II=1,79
VTAB(II)=0.0
565
                   TTAB(II)=0.0
                   ZTAB(II)=0.0
                   ATAB(II)=0.0
                   GTAB(II)=0.0
               671 CONTINUE
570
             c
               *********************
                   INPUT HOA AND ATAB FOR A LINES
               ***************
                   READ(5,N2)
575
                   WRITE(6,1400)
                   IF (INDUT.EQ.1) WRITE (6, N2)
                   DG 73C I=1,NOA
                   IF(UNIN.NE.2.0) ATAB(I)=ATAB(I)/.3048
                   069'089'086(Inch) Parta) 11
584
               680 VND=VU(1)
                   60 10 700
               690 CALL IUNI(99, NOLL, AT, 1, VT, 1, ATAB(I), VND, I3, IERR)
               7CO CALL IUNI (99, NOUU, AA, 1, TA, 1, ATAB (I), TST, IC, IERR)
585
                   IC=-1
                   VST=VA(1)
                  VG(1)=TST
                   L = 1
                   VTAB(L)=VST
590
               710 L=L+1
                   CALL IUNI(28,28, VOLTAB, 1, DELTAB, 1, VTAB(L-1), DELTV, ID, IERR)
                   10*-1
                   VTAB(L)=VTAB(L-1)+JELTV
                   IF (VTAB(L)-VND) /10,720,720
               725 VTAB(L)=VND
595
                   NOV=L
                  NN=0
            C
              A TMATERUS AC 29MIJ 27DJ9
600
            C.
              CALL ALINE
               746 CONTINUE
                  IF(PLGTG.EQ.3) GG TO 840
                  CO 741 II=1,99
605
                  VTAB(II)=U.O
                  O.O = (11) BATT
                  ZTAB(II)=J.O
```

```
ATAB(II)=0.0
610
                     GTAB (11) = G.O
                 741 CONTINUE
              C **********
                                 INPUT NOG AND GTAB FOR G LINES
              C
                     *******************
615
                     KEAD(5,N2)
                     WRITE(6,1400)
                     IF (INDUT. EQ.1) ARITE (6, NZ)
                     NK=NJL-4
                     NKK≈5
620
                     DG 770 I=1,N36
                     TST=TT(1-)
                     CALL IUNI (99, NOLL, GT, 1, VT, 1, GTAB (I), VST, IB, IERK)
                     I b = -1
                     CALL JUNI (99, NOUU, GA, 1, TA, 1, GTAB (I), TND, IC, IERK)
625
                     IC =-1
                     VG(1)=VST
                     L=1
                     TTAB(L)=TST
                750 L=L+1
TTAB(L)=TTAB(L-1)-DELT
636
                 IF(TTAB(L)+TND)/66,760,750
763 TTAB(L)=TND
                     NOT=L
                     NN=C
635
              C PLOTS LINES OF CONSTANT G
                CALL GLINET
770 CALL PLOT
PO 860 I=1,NJG
644
                     VND=VU(1)
                     CALL IUNI(99, NK, GL(NKK), 1, TL(NKK), 1, GTAB(I), TST, IB, IERR)
                     I8=-1
                     CALL IUNI(99, NK, GL(NKK), 1, VL(NKK), 1, GTAB(I), VST, IC, IERR)
645
                     VG(1)=TST
                     L = 1
                     VTAB(L)=VST
                765 L=L+1
650
                     CALL IUNI(28,28, VOLTAB, 1, DELTAB, 1, VTAB(L-1), DELTV, ID, IERR)
                     ID=-1
                     VTAB(L)=VTAB(L-1)+DELTV
                     IF(VTAB(L)-VNO)780,790,790
                790 VTAB(L)=VND
655
                     NOV=L
                     NN=C
                     CALL GLINE
                800 CALL PLOT
                     DO 830 I=1,NOG
660
                     TST=TT(1)
                     CALL IUNI(99, NOLL, GT, 1, VT, 1, GTAB(I), VST, IB, IERR)
                     18=+1
                     CALL IUNI (99, NOU, GU, 1, TU, 1, GTAB (I), TND, IC, IERR)
                     IC=-1
                     VG(1)=VST
665
                     L = 1
                     TTAB(L)=TST
                810 L=L+1
                     TTAB(L)=TTAB(L-1)-DELT
670
                     IF(TTAB(L)-TND)820,820,810
                820 TTAB(L)=TND
                     NOT=L
                     NN=0
                     CALL GLINET
675
                     VG(1)=TND
                     VTAB(1)=VU(1)
                     NOV=1
                     CALL GLINE
                830 CALL PLOT
840 CONTINUE
680
                IF(SFLAG.EQ.D.O) CALL CALPLT(0,0,999)
890 IF(SFLAG.NE.1.) GD TD 910
                     CALL CALPLT(0,0,999)
                     GD TD 910
```

```
963 WRITE(6,1600)
685
                      GC TG 910
905 WPIT: (6,2000)
                     2000 FORMAT(1H1,////, 18x, *THE PROGRAM DOES NOT HANDLE THIS COMPOUND+,
                           11X, *CORRECTLY AT THIS TIME BECAUSE OF LRRORS IN THE*,/,15X,
2*THERMODYNAMIC CONSTANTS. PLEASE REFER TO THE FREON PRODUCTS*,
31X,*BULLETINS FOR THE GAS PROPERTIES *,/,15X,
4*THAT ARE AVAILABLE. SURRY FOR THE INCONVIENIENCE.*)
690
                      910 STOP
                            SUBPRIUTINE ALINE
   1
                            SUBROUTINE ALINE COMPUTES LINES OF CONSTANT A, SPEED OF SOUND
                                    ***************
                            DIMENSION TT48(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                            COMMON JAGOA SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
COMMON CV, PPT, PPV, NAME, NAME1, NAME2
COMMON NOT, TTAB, NGV, VTAB, NGS, STAB, NGZ, ZTAB, NGA, ATAB, VIG
                            COMMON VG(2), AG(2), SG(2), ZG(2), PG(2), VGN, I, N, JJ, GG(2), ASQ, AI, SI, ZI
 10
                            CUMMON PS, NN, XPLOT(99), YPLOT(99), GI, GTAB(99), NOG, G
                            COMMON CAPA, CAPB, CAPC, CAPD, CAPE, CAPF, CAPG, CAPH, CAPL, ERR
                           CUMMON AEI,ALPHA,AVI,A2,A3,A4,A5,A6,B2,B2T,B3,B3T,B4F,B4T,
184T4,B5,d5T,80,b6T,C2,C2E,C3,C3E,C5,C5E,EAVI,EKKTI,
2H,J,JB6OA,JK,JR,JVI,J2,J4,K,KTI,OVIB,OVIB2,OVIB3,OVIB4,OVIB5,P,
3P,RT1,S,SAA,SB,S8B,SC,SO,SF,SUM10,SUM11,SUM2,SUM3,SUM33,SUM34,
 15
                           4SUM35, SUM4, SUM5, SUM6, SUM9, TI, TI2, TI3, TI4, VI, VIMB, VIMB2, VIMB22
                            COMMON VIMBO, DVI36, SUM36, SUM37, SUM38, SUM39, SUM43, SUM41, SUM42,
                           1SUM43, VI2, JVI2, A, Z, VIMB3, VIMB3, VIMB4, VIMB44, VIMB5, VIMB55
 20
                            REAL K, KTI, J, JVI, JBOUA, J2, J4, JK, JR, JVI2, JA60A
                            AI=ATAB(I)
                            DO 2 N=1,NOV
VI=VTAB(N)
                            CALL VVAR
 25
                            JJ=1
                            TI=VG(JJ)
                            CALL TVAR
                            AG(JJ)=A
                            IF(ABS(AG(JJ)-AI)-ERR*AI)70,71,71
 30
                            1F(JJ-1)72,72,43
                     71
                            JJ=2
                            VG(2)=VG(1)*1.05
                            GO TO 44
VGN=((VG(2)-VG(1))/(AG(2)-AG(1)))
                     43
 3 3
                           1*(A1-AG(1))+VG(1)
                            IF (VGN)46,46,45
                            VGN=.5+VG(2)
                     46
                            AG(1) = AG(2)
 40
                            VG(1)=VG(2)
                            VG(2) = VGN
                            GO TO 44
                            CALL PHOTV
                    70
                            RETURN
                            END
```

```
SUBROUTING AUTV
                              *********************
                SUBROUTINE AJIV CUMPUTES A=F(T,V), SPEED OF SOUND AS A FUNCTION
                DE T AND V
            ******************
                UIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                CJMMON JA6ŪAS SUM160, PC, VC, EM, UNID, FT, CT, PS TOP, PLOTOUT CJMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                COMMON CV, PPT, PPV, NAME, NAME1, NAME2
                CCMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
10
                CCMMUN Vo(2), AG(2), SG(2), ZG(2), PG(2), VGN, I, N, JJ, GG(2), ASQ, AI, SI, ZI
                CUMMUN PS, NN, XPLOT(99), YPLOT(99), GI, STAB(99), NOG, G
                COMMON CAPA, CAPB, CAPC, CAPD, CAPE, CAPF, CAPG, CAPH, CAPL, ERR
                COMMON AEI, ALPHA, AVI, A2, A3, 44, A5, A6, d2, B2T, B3, B3T, B4, B4T,
15
               184T4,85,85T,80,36T,C2,C2E,C3,C3E,C5,C5E,EAVI,EMKT1,
               2H, J, J66üA, JK, JR, JVI, J2, J4, K, KTI, ÖVIB, ÖVI32, ÖVIB3, ÖVIB4, ÖVIB5, P,
               3K, RTI, S, SAA, SB, SUU, SC, SD, SF, SUMIO, SUMII, SUMZ, SUM3, SUM33, SUM34,
               4SUM35, SUM4, SUM5, SUM6, SUM9, TI, TI2, TI3, T14, VI, VIM3, VIMB2, VIMB2
                CDMMUN V1486, DV186, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42,
               1SUM43, VI2, JVI2, A, Z, VIMB3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
20
                FEAL K, KTI, J, JVI, JOGOA, J2, J4, JK, JR, JVI2, JAGOA
                CZF6 CHECK
                      **************
25
                1F(CAPA . CQ. 1.0) U.C. Til 1000
           C
            C
                CARES CHECK
           C
           c
36
                1F(CAPB.NE.1.6) GC TO 2000
            ******************
                A=F(T,V) FOR CBRF3 ONLY
3 5
           c
                VI3=V12+VI
                VI4=VI2+VI2
                VI5=VI2+VI3
                CV=0.0175+1.94c-4*TI-8.34999E-8*TI2+1.6313E7/(VI*TI4)-3.389986E3/
40
               1 (VI3 *TI4) +4.064J785E-4/VI-4.5869087E-6/VI2-3.987b922E-8/VI3
                PPT=0.072J47/VI+6.Ju219617/VI2-0.000J24787/VI3+0.0000u02155/VI4
               1+(3./TI4)*(5.877E6/VI2-2.617E3/VI4)
                PPV=-(12.*2.49597)/VI3-(3.*.0274558)/VI4+(4.*.00017894)/VI5
45
                1+TI*(-0.072047/VI2-(2.*.00219617)/VI3+(3.*.000024787)/VI4
               2-(4.*.0000002155)/VI5)-((-2.*5.877E6)/VI3+(4.*2.617E3)/VI5)/TI3)
                A=JVI2*TI*PPT**2/CV-VI2*PPV
                GO TO 2001
            1000 CONTINUE
                -----
50
           C
                A=F(T,V) FOR C2F6 ONLY
            *******************
                BETA=.008223681553
                ALP= 18.20276942
55
                R=. C7775539769
                RTI=R*TI
                CV=.02378775437+.0J03463651333*TI-.142110846-06*TI2
               1+.7611753554E-11*TI3-.26902175E+03/TI2+((3.*J*ALP)/2(4.*BETA*TI**1.5))*ALOG((VI+BETA)/VI)
                PPT=R/(VI-BETA)+ALP/(2.*VI*(VI+BETA)*TI**1.5)
60
                PPV=-RTI/((VI-BETA)*(VI-BETA))+(ALP*(2.*VI+BETA))/(VI2*(VI+BETA)
                1*(VI+BETA)*TI**.5)
                PPV=-PPV
                A=JVI2*TI*PPT**2/CV-VI2*PPV
65
                GD TO 2001
           A=F(T,V) FOR ALL OTHER FREONS
           2000 CV=SUM160-SUM38*SUA36
                          {R *0VI3+SUM39*DVIB2+SUM40*DVIB3+SUM43+SUM41*0VIB5}
70
                PPT=
                                          (RTI*OVIB2+SUM33*OVIB3+SUM34*OVIB4
                2+SUM42+OVIB5+SUM35+OVIB6-AEI+SUM6)
                A=JVI2*TI*PPT**2/CV-VI2*PPV
            2001 CONTINUE
75
                A=SQRT(A+4633.056)
                RETURN
                END
```

· - r

```
1
                    SUBROUTINE BOUNDRY(SIDE)
                   TUPTUD YARDUNDA 301TUB STIR HEADINGS FOR THE BOUNDAY DUTPUT
                    DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                    COMMON JAGOA, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
                    COMMUN SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                    COMMON CV, PPT, PPV, NAME, NAME1, NAME2
                    COMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
                    COMMON VG(2),AG(2),SG(2),ZG(2),PG(2),VGN,I,N,JJ,GG(2),ASQ,AI,SI,ZI
COMMON PS,NN,XPLOT(99),YPLOT(99),GI,GTAB(99),NOG,G
10
                   COMMON CAPA, CAPB, CAPC, CAPD, CAPE, CAPF, CAPG, CAPH, CAPL, ERR
COMMON AEI, ALPHA, AVI, A2, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T,
184T4, B5, B5T, B6, B6T, C2, C2E, C3, C3E, C5, C5E, EAVI, EMKTI,
15
                   2H, J, JB6CA, JK, JR, JVI, J2, J4, K, KTI, DVIB, DVIB2, DVIB3, DVIB4, DVIB5, P,
                   3R, RTI, S, SAA, SB, SBB, SC, SD, SF, SUM10, SUM11, SUM2, SUM3, SUM33, SUM34,
                   4SUM35, SUM4, SUM5, SUM6, SUM9, TI, TI2, TI3, TI4, VI, VIMB, VIMB2, VIMB22
                    COMMON VIMB6, DVIB6, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42,
                   1SUM43, VI2, JVI2, A, Z, VIMB3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
                    REAL K, KTI, J, JVI, JB60A, J2, J4, JK, JR
20
                    REAL JVI2
REAL JA60A
                    INTEGER SIDE
                    COMMON PL(99),HL(99),PU(99),HU(99)
COMMON TT(99),VT(99),ST(99),ZT(99),AT(99),GT(99),PT(99),HT(99)
25
                    COMMON TA(99), VA(99), SA(99), ZA(99), AA(99), GA(99), PA(99), HA(99)
                    COMMON TL (99), VL (99), SL (99), ZL (99), AL (99), GL (99), NOL, TLIM
                    COMMON TU(99), VU(99), SU(99), ZU(99), AU(99), GU(99), NOU, TUIM
                    COMMON LNCT
30
                    COMMON/FNAME/FNAM(20)
              1000 FORMAT(1H1,/,40x, *BBUNDARY INFO SATURATION PRESSURE LINE*)
              1050 FORMAT(1H1,/,43X,*BDUNDARY INFO MAXIMUM VOLUME LINE*)
1100 FORMAT(1H1,/,40X,*BDUNDARY INFO CONSTANT TEMPERATURE LINE*)
1150 FORMAT(1H1,/,43X,*BDUNDARY INFO MINIMUM VOLUME LINE*)
              1200 FORMAT(44X,*OUTPUT IN US UNITS FOR *,A6,A4,/,
1//,5X,*T*,lOX,*V*,9X,*P*,lOX,*H*,9X,*A*,
35
                  18X, *CP/R*, 5X, *GAMMA+, 6X, *G*, 7X, *Z*, 11X, *MU*, 9X, *K*, 8X, *NPR*, 5X,
              1250 FORMAT(44X, *OUTPUT IN SI UNITS FOR *, A6, A4,/,
                   1//,5X,*T*,10X,*V*,9X,*P*,10X,*H*,9X,*A*
40
                   18X, *CP/R*, 5X, *GAMMA*, 6X, *G*, 7X, *Z*, 11X, *MU*, 9X, *K*, 8X, *NPR*, 5X,
                   2*S/R*./)
                    GC TO (100,200,300,400),SIDE
                                                  -
                    SATURATION PRESSURE LINE
45
               ****************
               10) WRITE(6,100C)
                   GD TO 500
               MAXIMUM VOLUME LINE
50
               *************
             C
               200 WRITE(6,1050)
                   60 TO 500
                   CONSTANT TEMPERATURE LINE
55
              ********************************
               300 WRITE(6,1100)
             MINIMUM VOLUME LINE
60
             4C3 WRIT= (6,1150)
               500 IF(UNIO.GT.1.) GO TO 510
                   WRITE(6,1250) FNAM(NAME1), FNAM(NAME2)
                   GU TU 523
65
               510 FRITE(6,1200) FNAM(NAME1), FNAM(NAME2)
               52 1 INCT = 4
                   RETURN
                   END
```

```
1
                      SUBROUTINE CARF3
                                             *********
                      SUBROUTINE CORFS COMPUTES THE FOLLOWING PROPERTIES FOR CHRF3
                       GNLY: P,H,S,Z,AND CV
 5
                      *************
                      DIMENSION TTAB(99), VTAB(99), STAB(99), ZTA3(99), ATAB(99)
                      CUMMUN JAGGA, SUMIGU, PC, VC, EM, UNTO, FT, CT, PSTOP, PLOTOUT
                      COMMON SUM161, SUM102, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                      CUMMON CV, PPT, PPV, NAME, NAMEL, NAMEZ
10
                      DIV. BATA, ADM, BATS, ZOM, BATV, VUM, BATT, TCM NOMMUD
                      COMMON VG(2),AG(2),SG(2),ZG(2),PG(2),VGN,I,N,JJ,GG(2),ASQ,AI,SI,ZI
COMMON PS,NN,XPLOT(99),TOLYPY,GI,GE,GM,G9),NOG,G
                      CGMMON CAPACCAPB, CAPC, CAPD, CAPF, CAPF, CAPG, CAPH, CAPL, ERR
CUMMON ALI, ALPHA, AVI, A2, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T,
                     184T4,85,85T,86,30T,C2,C2E,C3,C3E,C5,C5E,EAVI,EMKTI,
                     2H, J, JB6OA, JK, JK, JV1, J2, J4, K, KTI, DVIB, OVIB2, OVIB3, DVIB4, UVIB5, P,
                     3P,RTI,S,SAA,Su,SdB,SC,SD,SF,SUMIO,SUM11,SUM2,SUM3,SUM33,SUM34,
                     4SUM35, SUM4, SUM5, SUM6, SUM9, TI, TI2, TI3, TI4, VI, VIMB, VIMB2, VIMB22
                     CCMMUN VINBO, OVI36, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42, 1SUM43, VI2, JVI2, A, Z, VIM83, VIM833, VIM84, VIM844, VIM85, VIM85, VIM855
20
                      REAL K, KTI, J, JVI, J86BA, J2, J4, JK, JR
                      REAL JVIZ
REAL JAGDA
                      COMMON PL (99), HL (99), PU (99), HU (99)
25
                      COMMUN TT(99), VT(99), ST(99), ZT(99), AT(99), GT(99), PT(99), HT(99)
                      CUMMON TA(99), VA(99), SA(99), ZA(99), AA(99), GA(99), PA(99), HA(99)
                      COMMON TL(99), VL(99), SL(99), ZL(99), AL(99), GL(99), NJL, TLIM
                      CUMMON TU(99), VU(99), SU(99), ZU(99), AU(99), GU(99), NOU, TUIM
                      VI3=VI2*VI
30
                      VI4=VI2*VI2
                      VI5=V12+VI3
                      P=-2.49597/VI2+u.6274558/VI3-0.30017894/VI4
                     1+TI*(0.072047/VI+0.00217617/VI2-0.000024787/VI3
                     2+0.U000C02155/VI4)-(5.877E6/VI2-2.617E3/VI4)/TI3
35
                      S = 0.640295239 * ALUGLO (TI)+0.000194 * TI-4.175E-8 * TI2-3.2626694E6
                     1/(VI*TI4)+0.4642837E3/(VI3*TI4)+0.630699247*ALDG10(VI)
2-C.00C4C640785/VI+2.2934544E-6/VI2-1.3292974E-8/VI3-0.06216190
                      H=U.G175+TI+0.33U097+TI2-2.78333E-8+TI3-5.4377824E6/(VI+TI3)
                     1+1.1299953E3/(VI3*TI3)-(0.92377348-0.0C040640785*TI)/VI
                     2+(0.0676211673-4.5869687E-6*TI)/VI2-(4.4151179E-5+3.9878922E-8*TI)
40
                     3/VI3+21.422274
                      7=(VI+P-1/(RTI)
                      CV=G.C175+1.94E-4*TI-8.34999E-8*TI2+1.6313E7/(VI*TI4)-3.339986E3/
                     1(VI3*TI4)+4.0640785E-4/VI-4.5869087E-6/VI2-3.9878922E-8/VI3
                      PPT=0.072047/VI+0.00219617/VI2-0.000324787/VI3+0.0000602155/VI4
45
                     1+(3./TI4)*(5.877E6/VI2-2.617E3/VI4)
                      PPV=-((2.*2.49597)/VI3-(3.*.0274558)/VI4+(4.*.00017894)/VI5
                     1+TI*(-0.072047/VI2-(2.*.CQ217617)/VI3+(3.*.000024787)/VI4
                     2-(4.*.0000LG21>5)/VI5)-((-2.*5.877F6)/VI3+(4.*2.617E3)/VI>)/TI3)
5.0
                      RETURN
                      END
 1
                      SUBRIDUTINE CZF6
              С
                      SUBPOUTINE C2F6 COMPUTES THE FOLLOWING PROPERTIES FOR C2F6
                      UNLY: P.H.S.Z.AND CV
 5
                     **************
                      DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                      COMMON JA60A, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
                      CUMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC COMMON CV, PPT, PPV, NAME, NAME1, NAME2
                      CUMMUN NUT,TTAB,NOV,VTAB,NOS,STAB,NOZ,ZTAB,NOA,ATAB,VIG
COMMON VG(2),AG(2),SG(2),ZG(2),PG(2),VGN,I,N,JJ,GG(2),ASQ,AI,SI,ZI
10
                      COMMON PS, NN, XPLOT(99), YPLOT(99), GI, GTAB(99), NOG, G
                      COMMON CAPA, CAPB, CAPC, CAPD, CAPE, CAPF, CAPG, CAPH, CAPL, ERR
                      COMMON AEI, ALPHA, AVI, AZ, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T,
                     184T4,85,85T,86,36T,C2,C2E,C3,C3E,C5,C5E,EAVI,EMKTI,
2H,J,J86OA,JK,JR,JVI,J2,J4,K,KTI,OVIB,OVI82,OVI83,OVI84,OVI85,P,
15
                     3R, RTI, S, SAA, SB, SBB, SC, SD, SF, SUM10, SUM11, SUM2, SUM3, SUM33, SUM34, 4SUM35, SUM4, SUM5, SUM6, SUM6, TI, TI2, TI3, TI4, VI, VIMB, VIMB2, VIMB2, VIMB2
                      COMMON VIMB6, DVIB6, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42,
20
                     1SUM43, VI2, JVI2, A, Z, VIMB3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
                      REAL K, KTI, J, JVI, JB60A, J2, J4, JK, JR, JVI2, JA60A
                      COMMON PL (99), HL (99), PU (99), HU (99)
                     COMMON TT(99),VT(99),ST(99),ZT(99),AT(99),GT(99),PT(99),HT(99)
COMMON TA(99),VA(99),SA(99),ZA(99),AA(99),GA(99),PA(99),HA(99)
25
                      COMMON TL(99), VL(99), SL(99), ZL(99), AL(99), GL(99), NOL, TLIM
```

```
CCMMON TU(99), VU(99), SU(99), ZU(99), AU(9 ), GU(99), NUU, TUIM
                                        COMMON LACT
                                        hFTA=.008223681553
                                        ALP= 38 . 20276942
 3υ
                                        P=.07775539769
                                       KTI=K*TI
                                        J=C.185053
                                        j£ ≖J*P
                                        P=RTI/(VI-dETA)-ALP/(VI*(VI+BETA)*SCRT(TI))
                                        S + 0 . 02379775437 + AL UG (TI) + . 000346365133 + TI - . 14211084 = - C6 + TI2/2 .
 35
                                      l+.76.1753554E-11+TI3/3.+JR*ALOG(VI-BETA)-(J*ALP/(2.*BETA*TI**1.5))
                                      2 *ALJG (VI+BETA)/VI)-.15557+.26902175±03/(2.*TI2)
H=.02378775437*TI+.UCU3463651333*TI2/2.-.14211084E-06*TI3/3.+
                                      1.7611753554E-11*TI4/4.+.26902175E+03/TI+J*P*VI-((3.*J*ALP)
 40
                                      1/(2.*BETA*TI**.5))*ALOG((VI+BETA)/V1)+1.55599999
                                       Z=(VI*P)/(RTI)
                                       CV=.02378775437+.UJU3463651333*TI-.14211J84E-J6*TI2
                                      1+.7611753554c-11*TI3-.26902175E+03/TI2+((3.*J*ALP)/
                                      2(4.*BETA*TI**1.5))*ALOG((VI+BETA)/VI)
 45
                                       PPT=R/(VI-BETA)+ALP/(2.*VI*(VI+BETA)*TI**1.5)
                                        PPV=+RTI/((VI-BLTA)*(VI-BETA))+(ALP*(2.*VI+BETA))/(VI2*(VI+BETA)
                                      1*(VI+BETA)*TI**.5)
                                       PPV=-PPV
                                       RETURN
56
                                       END
   1
                                       SUBROUTINE CHSTS
                          C ****
                                      SUBROUTINF COSTS ASSIGNS THE CONSTANTS REQUIRED IN THE THERMODYNAMIC EQUITABLE OF THE CONSTANTS OF THE CONST
                          C
   5
                          C.
                                      FRECH PRODUCT BULLETINS ARE AVAILABLE FROM THE FRECH PRODUCTS DIVISION OF E. I. DU PONT DE NEMDURS & CO., INC. WILMINGTON,
                          Ć.
                                       CELAWARE 19898
                              **********
10
                                      DIMENSION TTAB(94), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                                      COMMON JA60A, SUM16J, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                                      COMMON CV,PPT,PPV,NAME,NAME1.NAME2
COMMON NOT,TTAB,NGV,VTAB,NGS,STAB,NOZ,ZTAB,NOA,ATAB,VIG
                                       COMMON VG(2), AG(2), SG(2), ZG(2), PG(2), VGN, I, N, JJ, GG(2), ASQ, AI, SI, ZI
15
                                       COMMON PS, NN, XPLOT(99), YPLOT(99), GI, GTAB(99), NOG, G
                                       COMMON CAPA, CAPB, CAPC, CAPD, CAPE, CAPF, CAPG, CAPH, CAPL, ERR
                                       COMMON AEI, ALPHA, AVI, A2, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T,
                                     184T4,85,85T,86,86T,C2,C2E,C3,C3E,C5,C5E,EAVI,EMKTI,
                                     2H, J, J860A, JK, JR, JVI, J2, J4, K, KTI, OVIB, OVIB2, OVIB3, OVIB4, OV165, P,
20
                                     36,RTI,S,SAA,SB,SBB,SC,SD,SF,SUM10,SUM11,SUM2,SUM3,SUM33,SUM34,
4SUM35,SUM4,SUM5,SUM6,SUM9,TI,TI2,TI3,TI4,VI,VIMB,VIMB2,VIMB22
                                       COMMON VIMB6, DVIB6, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42,
                                     1SUM43, VI2, JVI2, A, Z, VIMB3, VIMB3, VIMB4, VIMB44, VIMB5, VIMB55
25
                                      PEAL K, KTI, J, JVI, J860A, J2, J4, JK, JR
                                       REAL JVI2
                                       REAL JACOA
                             INITIALIZATION OF THE THERMODYNAMIC CONSTANTS
3.0
                                      DO 10 I=1,99
                                      STAB(I)=0.0
                                10 CONTINUE
                                      NGS = O
                                      CAPA=CAPB=CAPC=CAPU=CAPE=CAPF=O.0
35
                                       CAPG=CAPH=CAPL=CAPX=CAPY=TC=O.O
                                      PC=VC=EM=FT=CT=0.0
                                      R = A2 = B2 = C2 = A3 = B = 0 . U
```

```
C3=A4=84=A5=85=C5=0.0
 40
                      A6=B6=SB=K=AL PHA=SAA=0.0
                      SBB=SC=3D=SF=U.0
                      ERR=0.1E-64
                      J=.1850>05
                      PSTOP=.074
                      GU TD (133,230,300,430,500,600,700,800,900,1000,1100,1203), NAME
 45
                     FREDN 11 (CCL3F) INPUT CONSTANTS
                      KEFERENCE - DR. J. J. MARTIN, UNIV. OF MICHIGAN AND FREON PPODUCTS BULLETIN 1-11
 50
                 *****************
                 100 VIG=.60 $ CAPA=42.14702865 $ CAPB=-4344.343807 $ CAPC=-12.84596753
                      CAPD=C.0046C8372567 & CAPE=0.0313605356 & CAPE=862.07
                      CAPX=50.5418 $ CAPY=-0.0918395 $ R=0.078117 $ A2=-3.126759
                      82=1.310523b-03 b C2=-35.769990 $ A3=-0.025341 $ 83=4.875021E-05
                      C3=1.220307 $ A4=1.687277E-03 $ B4=-1.805062E-06
                      A5=-2.358930E-00 $ 85=2.448303E-08 $ C5=-1.478379E-04
                      A6=1.057504E+08 $ B6=-9.472103E+04 $ K=.305306 $ ALPHA=-580.0
                      $8=0.00190 $ $AA=0.023815 $ $88=2.798823E-04 $ $C=-2.123734E-07
                      SD=5.99018E-11 $ SF=-336.807030 $ PC=96.326 $ TC=654.67
 60
                      VC=0.45838 $ EM=137.30 $ FT=291.67 $ CT=1060.0
                      CRAB=8.5
                      DO 150 I=1,99
                      NGS=I
                      CRAB=CRAB+.5
                      STAB(I)=CRAB
 60
                      IF(STAB(I).EQ.15.5) GU TO 163
                 150 CONTINUE
                 160 RETURN
                     FREON 12 (CCL2F2) INPUT CONSTANTS
REFERENCE - REFRIGERATING ENGINEERING VOL. 63, PG 31, SEPT. 65
 7.0
               r
                      AND FREDN PRODUCTS BULLETIN RT-21
                 200 VIG=.05 $ CAPA=39.08381727 $ CAP8=-3436.632228 $ CAPC=-12.47152228
                      CAPD=0.004730442442
 75
                      CAPX=39.55655122 $ CAPY=-0.0165379361 $ R=0.388734
                      A2=+3.409727134 $ 82=0.00159434848 $ C2=-56.7627671
                      A3=0.06023944554 $ 83=-1.879618431E-05 $ C3=1.311399084
A4=-0.000548737907 $ 85=3.468834E-09 $ C5=-2.54390678E-05
 8ŭ
                      K=.007897 $ SB=0.0065093886 $ 3AA=0.0080945 $ SBB=0.000332662
                      SC=-2.413896E-07 $ SD=6.72363E-11 $ PC=596.9 $ TC=693.30 VC=0.02870 $ EM=120.93 $ FT=207.67 $ CT=1060.0
                      CRAB=6.5
                      DB 250 I=1,99
 85
                      NDS=I
                      CRAB = CRAB+ . 5
                      STAB(I)=CRAB
                      IF(STAB(I).EQ.16.5) GO TO 260
                 250 CUNTINUE
 90
                 260 RETURN
                                          ¢
                      FREDN 13 (CCLF3) INPUT CONSTANTS
                     ******** NOTE : AT THIS TIME ERRORS EXIST IN THE CONSTANTS
AND THIS FREDN CAN NOT BE SELECTED - PLEASE REFER TO THE BULLETIN
SHOWN FOR THE AVAILABLE THERMODYNAMIC DATA. ********
REFERENCE - EQ. UF STATE, DR. J. J. MARTIN, UNIV. OF MICHIGAN
AND FREDN PRODUCTS BULLETIN X-95. VAPOR PRESSURE AND HEAT
               С
               C
 95
                      CAPACITY, INDUSTRIAL & ENGINEERING CHEMISTRY VOL.44, PG 188,
                      JAN. 1952
100
                 300 VIG=.0278 $ CAPA=25.96797498 $ CAPB=-2409.538217 $ CAPC=-7.1723439
                     105
                      SAA=0.01602 $ SBB=2.823E-04 $ SC=-1.159E-07 $ PC=561.3
TC=543.6 $ VC=0.0277239 $ EM=104.47 $ FT=165.67 $ CT=1060.
110
                 360 RETURN
                 *********
                      FREON 1381 (CBRF3) INPUT CONSTANTS
                      REFERENCE - FREUN PRODUCTS BULLETIN X-65
```

```
115
                   400 VIG=.05 $ R=.0720565 $ PC=575.0 $ TC= 612.6 $ VC=0.02150
                        EM=148.93 $ FT=190.0 $ CT=1060.0
                        CAPB=1.0
                        CRAB=4.00
                        DO 450 I=1,99
 120
                        NOS=I
                        CRAB=CRAB+-.5
                        STAB(I)=CRAB
                        IF(STAB(I).EQ.12.50) GO TO 460
                   450 CONTINUE
 125
                   460 RETURN
                   ********
                                   ********************
                       FREON 14 (CF4) INPUT CONSTANTS
                       REFERENCE .
                                    - DR. J. J. MARTIN, UNIV. OF MICHIGAN
                   500 VIG=.032998 $ CAPA=20.71545389 $ CAPB=-2467.505285
 130
                       CAPC=-4.69017025 $ CAPD=G.00064798076 $ CAPE=0.770707795
                        CAPF=424.0 $ CAPX=86.102162 $ CAPY=0.36172528
                       R=0.1219336 $ A2=-2.162959 $ B2=2.135114E-03
C2=-16.941131 $ A3=4.404057E-03 $ B3=1.282818E-05
                       C3=0.539776 $ A4=1.921072E=04 $ B4=-3.918263E=07 
A5=-4.481049E-06 $ B5=9.062318E=09 $ C5=-4.836678E=05
 135
                        A6=5.838823E+07 $ 86=-9.263923E+04 $ K=.009768
                        ALPHA=-661.199997 $ SB=0.0015 $ SAA=3.00559282E-02
                       SBB=2.37043352E-04 $ SC=-2.85660077E-08 $ SD=-2.95338806E-11
                       PC=543.16 $ TC=409.50 $ VC=0.02560163 $ EM=88.01
140
                       FT=160.67 $ CT=1060.0
                       CRAB=23.5
                       DO 550 I=1,99
                       NOS# I
145
                       CRAB=CRAB+.5
                       STAB(I)=CRAB
                       IF(STAB(I).EQ.40.5) GO TO 560
                   550 CONTINUE
                   560 RETURN
150
                C *************
                       FREON 21 (CHCL2F) INPUT CONSTANTS
REFERENCE - FREON PRODUCTS BULLETIN T-21
                C
                  60C VIG=.06 $ CAPA=42.7908 $ CAPB=-4261.34 $ CAPC=-13.0295 CAPD=0.0C39851 $ R=0.10427 $ A2=-7.316 $ B2=0.00464210 A3=-0.20382376 $ B3=0.000393 $ SAA=0.0427 $ SBB=0.000140
155
                       PC=750.0 $ TC=812.9 $ VC=0.030675 $ EM=102.93 $ FT=248.67
                       CAPX=76.294 $ CAPY=-.1104
                       CT=1060.0
160
                       LFAB=9.5
                       DG 650 I=1,99
                       N(iS = 1
                       CRAB#CRAB+.5
                       STAB(T)=CRAB
                       IF(STAB(I). EQ. 23.0) GU TO 650
165
                  650 CENTINUE
                  660 RETURN
                  FREON 22 (CHOLF2) INPUT CONSTANTS
                      ********* NOTE : AT THIS TIME ERRORS EXIST IN THE CONSTANTS
AND THIS FREUN CAN NUT BE SELECTED - PLEASE REFER TO THE BULLETIN
170
               С
                      SHOWN FOR THE AVAILABLE THERMODYNAMIC DATA-
REFERENCE - FREON PRODUCTS BULLETIN T-22
                  700 VIG=.06 $ CAPA=29.35754453 $ CAPB=-3845.193152 $ CAPC=-7.86103122
175
                       CAPD=C.002190439044 $ CAPE=0.445746703 $ CAPF=686.1
                      CAPX=2.4009 $ CAPY=-0.0453335 $ R=0.124098 $ A2=-4.353547 82=0.0024072>2 $ C2=-44.066868 $ A3=-0.017464 $ B3=7.62789E-05 C3=1.483763 $ A4=0.002310142 $ 84=-3.605723E-06
                      A5=-3.724044c-05 $ B5=5.355465E-08 $ C5=-1.845051E-04
A6=1.363387E+0d $ B6=-1.672612E+05 $ K=.00632054 $ ALPHA=-548.2
180
                      SE=0.002 $ SAA=0.02812836 $ SBB=2.255408E-04 $ SC=-6.509607E-08
                       SF=257.341 $ PC=721.906 $ TC=664.50 $ VC=0.030525 $ EM=86.48
                      FT=203.67 $ CT=1060.0
185
                      PETURN
                      FREDN 23 (CHF3) INPUT CONSTANTS
                      REFERENCE - A. I. CH. E. JOURNAL VOL. 5, PG 125, MARCH 1959
               C
               C
196
                  800 VIG=.06 3 CAPA=326.90853 $ CAPB=-7952.76913 $ CAPC=-144.5142334
```

```
CAPD=0.2421150182 $ CAPH=-2.128066524E-04 $ CAPL=9.43495542E-08
                         CAPX=41.569 $ CAPY=-.25603
                         R=0.153270 $ A2=-5.016053028 $ 82=3.10516248E-03
                         C2=-1.308703305E+02 $ A3=9.781899057E-02 $ B3=-3.80613864E-05
195
                         C3=3.53359637 $ A4=-1.094517281E-03 $ B5=1.112366387E-08
                         C5=-1.82469146E-04
                         K=.01021678
                         SB=0.00125 $ SAA=0.07628087 $ SBB=-7.561805E-06
SC=3.9065696E-07 $ SD=-2.454905E-10 $ PC=701.42 $ TC=538.33
200
                         VC=0.030510 $ EM=70.02 $ FT=212.27 $ CT=1060.0
                         CRAB=6.00
                         DO 850 I=1,99
                         NOS=I
                         CRAB=CRAB+.5
STAB(I)=CRAB
IF(STAB(I).EQ.24.50) GU TO 860
205
                    850 CONTINUE
                    860 RETURN
                         FREDN 113 (CCL2FCCLF2) INPUT CONSTANTS
REFERENCE - I. & EC. VOL. 32, PG 497,698,976 , APRIL-JULY 1940
AND FREON PRODUCTS BULLETIN T-113A
210
                                                       **********
                   900 VIG=.60 $ CAPA=33.0655 $ CAPB=-4330.98 $ CAPC=-9.2635

CAPD=0.C020539 $ CAPX=25.198 $ CAPY=-0.40552 $ R=0.05728

A2=-4.035 $ 82=0.002618 $ A3=-0.0214 $ 83=0.000500

SAA=0.07963 $ S8B=0.0001159 $ PC=71.07 $ TC=679.67 $ VC=0.4827

EM=187.39 $ FT=483.67 $ CT=1060.0
215
                         PSTOP=1.60
220
                         CRAB=7.5
                         DO 950 I=1,99
                         NOS = I
                         CRAB=CRAB+.5
                         STAB(I)=CRAB
220
                         IF(STAB(I).EQ.13.00) GO TO 960
                    950 CONTINUE
                    960 RETURN
                 C
                         FREDN 114 (CCLF2CCLF2) INPUT CONSTANTS
230
                         REFERENCE - JOURNAL OF CHEM. & ENG. DATA VOL. 5, PG 334, JULY
                         1960
                 100C VIG=10.C $ CAPA=27.07130E $ CAPB=-5113.7021 $ CAPC=-6.3086761 CAPD=6.913003E-04 $ CAPE=0.73142111002 $ CAPF=768.35
235
                         CAPX=25.33966211 $ CAPY=-0.1151371756 $ R=U.J62780807
                         A2=-2.3856704 $ B2=1.0601207E=03 $ C2=-6.5643648
A3=C.034055687 $ B3=-5.3336494E=06 $ C3=0.16366057
A4=-3.857481E=04 $ A5=1.6017659E=06 $ B5=6.2623341E=10
                        C5=-1.0163314E-05 $ K=.00397904 $ S8=0.0039914907 $ SAA=0.0175
SBB=3.49E-04 $ SC=-1.67E-07
PC=3.094 $ TC=435.67 $ VC=8.733 $ EM=170.94 $ FT=322.67
240
                         CT=1060.0
                         CRAB=6.5
                         DD 1050 I=1,99
                        NOS=I
245
                         CRAB=CKAB+.5
                         STAB(I)=CRAB
                         IF(STAB(I).EQ.15.CO) GO TO 1060
                  1050 CONTINUE
25û
                  1060 RETURN
                        FREGN 116 (CF3CF3) INPUT CONSTANTS
REFERENCE - FREJN PRUDUCTS BULLETINS 116 AND X-8882
                  *************
                  1100 VIG=1.100004 $ R=.0777554 $ PC=33.9433 $ TC=381.67 $ VC=.81309 EM=136.02 $ FT=3±0.9 $ CT=1060.0
255
                         CAPA=1.0
                        CRAB=4.50
CO 1150 I=1,99
                        NOS=I
260
                         CRAB=CRAB+.5
                         STAb(I) = CRAB
                         IF(STAB(I).EJ.16.53) GD TO 1160
                  1150 CONTINUE
265
                  1160 PETURN
```

```
FREDN C318 (C-C4F8) INPUT CONSTANTS
REFERENCE - JOURNAL OF CHEM. & ENG. DATA VOL. 7, PG 68, JAN 1962
 1200 VIG=.08 $ CAPA=15.6342 $ CAPB=+4301.063 $ CAPC=-2.128401
        CAPD=-0.00119759 $ CAPE=0.6625898 $ CAPF=714.0
CAPX=12.19214242 $ CAPY=-0.1682887079 $ R=0.05364569795
        A2=-1.8947374 $ B2=9.8484745E-04 $ C2=-28.542156
A3=0.026479892 $ B3=-6.862101E-06 $ C3=0.66384636
A4=-2.5465234E-04 $ A5=6.0887086E-07 $ B5=8.269634E-10
C5=-3.849145E-05 $ K=.00715031 $ SB=0.0060114165
        SAA=0.02251781573 $ SBB=3.699078141E-04
SC=-1.648425224E-07 $ SD=2.152780846E-11 $ PC=312.195
        TC=671.1 $ VC=.0630 $ EM=200.04 $ FT=417.17 $ CT=1060.0
        PSTOP=.80
        CRAB=5.5
        DO 1250 I=1,99
        N D S = T
        CRAB=CRAB+.5
        STAR(T)=CRAR
        IF(STAB(I).EQ.14.00) GO TO 1260
 1250 CONTINUE
 1260 RETURN
        END
        SUBROUTINE GLINE
C *****
        SUBROUTINE GLINE COMPUTES LINES OF CONSTANT G, ISENTROPIC
       EXPANSION EXPONENT
  *****************
       DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
        COMMON JAGOA, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
        COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
        COMMON CV, PPT, PPV, NAME, NAME1, NAME2
       COMMON NOT; TTAB; NOV; VTAB; NOS; STAB; NOZ; ZTAB; NOA; ATAB; VIG
COMMON VG(2); AG(2); SG(2); ZG(2); PG(2); VGN; I; N; JJ; GG(2); ASQ; AI; SI; ZI
COMMON PS; NN; XPLOT(99); YPLOT(99); GI; GTAB(99); NOG; G
COMMON CAPA; CAPB; CAPC; CAPD; CAPE; CAPF; CAPG; CAPH; CAPL; ERR
       COMMON AEI, ALPHA, AVI, A2, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T,
      184T4, 85, 85T, 86, 86T, C2, C2E, C3, C3E, C5, C5E, EAVI, EMKTI,
      2H, J, JB6OA, JK, JR, JVI, J2, J4, K, KTI, OVIB, OVIB2, OVIB3, OVIB4, OVIB5, P,
      3R, RTI, S, SAA, SB, SBB, SC, SD, SF, SUM10, SUM11, SUM2, SUM3, SUM33, SUM34,
      4SUM35,SUM4,SUM5,SUM6,SUM9,TI,TI2,TI3,TI4,VI,VIMB,VIMB2,VIMB22
       COMMON VIMB6, OVIB6, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42,
      1SUM43, VI2, JVI2, A, Z, VIMB3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
       REAL K,KTI,J,JVI,J86JA,J2,J4,JK,JR,JVI2,JA6DA
GI=GTAB(I)
       DO 2 N=1.NOV
       VI=VTAB(N)
       CALL VVAR
        JJ = 1
       TI=VG(JJ)
       CALL TVAR
       CALL GOTV
       GG(JJ)=G
       IF (ABS(GG(JJ)-GI)-ERR*GI)70,71,71
       IF(JJ-1)72,72,43
       JJ=2
       VG(2)=VG(1)+1.01
       GO TO 44
       VGN=((VG(2)-VG(1))/(GG(2)-GG(1)))
 43
      1*(GI-GG(1))+VG(1)
       IF(VGN)46,46,45
       VGN=.5*VG(2)
       GG(1)=GG(2)
       VG(1)=VG(2)
       VG(2)=VGN
       GO TO 44
       CALL PHOTY
 70
       CONTINUE
       RETURN
       END
```

```
1
                        SUBROUTINE GLINET
                c
                        SUBROUTINE GLINET IS USED TO COMPUTE LINES OF CONSTANT G, ISENTROPIC EXPANSION EXPONENT
 5
                        DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99) COMMON JA60A, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
                        COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                        COMMON CV, PPT, PPV, NAME, NAME1, NAME2
10
                        COMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NDA, ATAB, VIG
                        COMMON VG(2),AG(2),SG(2),ZG(2),PG(2),VGN,I,N,JJ,GG(2),ASQ,AI,SI,ZI
COMMON PS,NN,XPLOT(99),YPLOT(99),GI,GTAB(99),NOG,G
COMMON CAPA,CAPB,CAPC,CAPD,CAPE,CAPF,CAPG,CAPH,CAPL,ERR
                       COMMUN AEI, ALPHA, AVI, A2, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T, 1B4T4, B5, B5T, B6, B6T, C2, C2F, C3, C3F, C5F, C5F, EAVI, EMKTI,
15
                       2H, J, JB6DA, JK, JR, JVI, J2, J4, K, KTI, QVIB, QVIB2, QVIB3, QVIB4, QVIB5, P,
                       3R, RTI, S, SAA, SB, SBB, SC, SD, SF, SUM10, SUM11, SUM2, SUM3, SUM33, SUM34,
                       4SUM35,SUM4,SUM3,SUM6,SUM9,TI,TI2,TI3,TI4,VI,VIMB,VIMB2,VIMB22
                        COMMON VIMBO, GVIBO, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42,
                       1SUM43, VI2, VVI2, A, Z, VIMB3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
REAL K, KTI, J, JVI, JB60A, J2, J4, JK, JR, JVI2, JA60A
20
                        GI=GTAB(I)
                        DO 2 N=1, NOT
                        TI=TTAB(N)
25
                        CALL TVAR
                         JJ=1
                  44
                        VI=VG(JJ)
                        CALL VVAR
                        CALL GOTV
30
                        GG(JJ)=G
                        IF (ABS(GG(JJ)-GI)-ERR*GI)70,71,71
                  71
                        IF(JJ-1)72,72,43
                         JJ=2
                        VG(2)=VG(1)*1.01
35
                        GU TO 44
                        VGN=((VG(2)+VG(1))/(GG(2)-GG(1)))
                       1*(GI-GG(1))+VG(1)
                        IF(VGN)46,46,45
                        VGN=.5*VG(2)
40
                        GG(1)=GG(2)
                        VG(1)=VG(2)
                        V6 (2) = V6A
                        GO TO 44
                  70
                        CALL PHOTV
45
                        CONTINUE
                        FETURN
                        END
                        SUBROUTINE GOTV
 1
                        SUBPOUTINE GOTV COMPUTES G = F(T, V), ISENTRUPIC EXPONENT AS A FUNCTION OF T AND V
  5
                C
                        DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                        COMMON JAGOA, SUMIGO, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
                         COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                         COMMON CV, PPT, PPV, NAME, NAME1, NAME2
                        COMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
10
```

```
COMMON VG(2),AG(2),SG(2),ZG(2),PG(2),VGN,I,N,JJ,GG(2),ASQ,AI,SI,ZI
COMMON PS,NN,XPLOT(99),YPLOT(99),GI,GTAB(99),NDG,G
COMMON CAPA,CAPB,CAPC,CAPD,CAPE,CAPF,CAPG,CAPH,CAPL,ERR
                    COMMON AEI, ALPHA, AVI, A2, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T,
 15
                   184T4,85,85T,86,36T,C2,C2E,C3,C3E,C5,C5E,EAVI,EMKTI,
                   2H, J, JB6OA, JK, JR, JVI, J2, J4, K, KTI, QVIB, QVIB2, QVIB3, QVIB4, QVIB5, P,
                  3R, RTI, S, SAA, SB, SBB, SC, SD, SF, SUM10, SUM11, SUM2, SUM3, SUM33, SUM34,
                  4SUM35, SUM4, SUM5, SUM6, SUM9, TI, TI2, TI3, TI4, VI, VIMB, VIMB2, VIM822 CUMMON VIMB6, DVIB6, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42,
               1SUM43,VI2,JVI2,A,Z,VIMB3,VIMB3,VIMB4,VIMB6,VIMB6,VIMB65

REAL K,KTI,J,JVIJ,J60A,J2,J4,JK,JR,JVIZ,JA60A
 26
                   CZF6 CHĒCK
 25
             С
                   IF (CAPA.EQ.1.0) Gũ TU 1000
             C
                   CBRF3 CHECK
                      30
                   IF(CAP8.NE.1.G) GO TO 2000
               **********************
                   G=F(T.V) FOR CBRE3 ONLY
 35
                   VI3=VI2+VI
                   VI4=VI2+VI2
                   VI5=VI2*VI3
                   P=-2.49597/VI2+0.0274558/VI3-0.00017894/VI4
 40
                  1+TI+(0.072047/VI+0.00219617/VI2-0.000024787/VI3
                  2+(.0000C02155/VI4)-(5.877E6/VI2-2.617E3/VI4)/TI3
                   CV=0.(175+1.94E-4*TI+8.34999E-8*TI2+1.6313E7/(VI*TI4)-3.389986E3/
                  1(VI3*TI4)+4.Go40/856-4/VI-4.5869087E-6/VI2-3.98789226-8/VI3
 45
                   PPT=0.072047/VI+0.00219617/VI2-0.000024787/VI3+0.000G0G2155/VI4
                  1+(3./TI4)*(5.877E6/VI2-2.617E3/VI4)
                   PPV=-((2.*2.49597)/VI3-(3.*.0274558)/VI4+(4.*.00017894)/VI5
                  1+TI+(-0.072047/VI2-(2.*.C)219617)/VI3+(3.*.000024787)/VI4
                  2-(4.*.0000002155)/VI5)-((-2.*5.877E6)/VI3+(4.*2.617E3)/VI5)/TI3)
50
                   A=JVI2*TI*PPT**2/CV-VI2*PPV
                   GC TO 2001
              1000 CONTINUE
               ********************
                   G=F(T,V) FOR C2F6 BNLY
                  *******
55
             C
                                        **********
                   BETA = . 008223681553
                   ALP=38.20276942
                   F = . 07775539769
                   RTI=R+TI
60
                   P=RTI/(VI-BETA)-ALP/(V1*(VI+BETA)*SQRT(TI))
                   CV=.02378775437+.0003463651333*TI-.14211084E-06*TI2
                  1+.7611753554E-11*TI3-.26902175E+03/TI2+((3.*J*ALP)/
                  2(4.*BETA+TI**1.5))*ALQG((VI+BETA)/VI)
                   PPT=R/(VI-BETA)+ALP/(2.*VI*(VI+BETA)*TI**1.5)
                   PPV=-RTI/((VI-BETA)*(VI-BETA))+(ALP*(2.*VI+BETA))/(VI2*(VI+BETA)
65
                  1*(VI+BETA)*TI**.5)
                  PPV=-PPV
                   A=JVI2*TI*PPT**2/CV-VI2*PPV
                   GO TO 2001
70
                  G=F(T,V) FOR ALL OTHER FREONS
             2000 P=RTI+OVIB+SUM2+OVIB2+SUM3+OVIB3+SUM4+OVIB4+SUM5+OVIB5+SUM6+EAVI
                  CV=SUM160-SUM38*SUM36
75
                            (R *0VIB+SUM39*0VIB2+SUM40*0VIB3+SUM43+SUM41*0VIB5)
(RTI+0VIB2+SUM33*0VIB3+SUM34*0VIB4
                 2+SUM42+OVIB5+SUM35+OVIB6-AEI+SUM6)
                  A=JVI2+TI+PPT++2/CV-VI2+PPV
             2001 CONTINUE
                  ASQ=A+4633.056
80
                      /(P*VI)
                  RETURN
                  END
```

```
1
                      SUBROUTINE PHOTY
              c
                                           ************
                     SUBROUTINE PHOTY COMPUTES THE THERMODYNAMIC PROPERTIES OF THE
                      VARIOUS FREON COMPOUNDS
 5
                     DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                     COMMON JA60A, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
                     COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                     COMMON CV, PPT, PPV, NAME, NAME1, NAME2
                     COMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
COMMON VG(2), AG(2), SG(2), ZG(2), PG(2), VGN, I, N, JJ, GG(2), ASO, A1, SI, ZI
COMMON PS, NN, XPLOT(99), YPLOT(99), GI, GTAB(99), NOG, G
10
                     COMMON CAPA, CAPB, CAPC, CAPD, CAPE, CAPF, CAPG, CAPH, CAPL, ERR
                     COMMON AEI, ALPHA, AVI, AZ, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T,
15
                    184T4,85,85T,86,86T,C2,C2E,C3,C3E,C5,C5E,EAVI,EMKTI,
                    2H, J, JB6OA, JK, JR, JVI, J2, J4, K, KTI, OVIB, OVIB2, OVIB3, OVIB4, OVIB5, P,
                    3R, RTI, S, SAA, SB, SBB, SC, SD, SF, SUM10, SUM11, SUM2, SUM3, SUM33, SUM34,
                    4SUM35, SUM4, SUM5, SUM6, SUM9, TI, TI2, TI3, TI4, VI, VIMB, VIMB2, VIMB22
                    COMMON VIMB6, OVIB6, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42, LSUM43, VI2, JVI2, A, Z, VIM83, VIM833, VIM84, VIM844, VIM85, VIM85, VIM85
20
                     REAL K,KTI,J,JVI,JB60A,J2,J4,JK,JR
REAL JVI2
REAL JA60A
                     COMMON PL(99), HL(99), PU(99), HU(99)
25
                     COMMON TT(99), VT(99), ST(99), ZT(99), AT(99), GT(99), PT(99), HT(99)
                     COMMON TA(99), VA(99), SA(99), ZA(99), AA(99), GA(99), PA(99), HA(99)
                     COMMON TL(99), VL(99), SL(99), ZL(99), AL(99), GL(99), NDL, TLIM
                     COMMON TU(99), VU(99), SU(99), ZU(99), AU(99), GU(99), NOU, TUIM
                     COMMON/BOUND/FLAGOUT, NOENT
                     CBRF3 CHECK
                                               *********
                     IF(CAPA.NE.O.O) GO TO 1000
                     CALL CBRF3
                     60 TO 2001
35
                 *********************
                     C2F6 CHECK
               1000 IF(CAPB.NE.G.O) GO TO 2000
40
                     CALL C2F6
                     GG TO 2001
                     COMPUTATION OF GAS PROPERTIES P,S,H,Z,CV,CP,GAMMA,A,AND 6
45
               2000 P=RT1*UVB+SUM2*JUB2+SMM3*JVB3+SMM4*DVB4+SUM5*DVB5+SUM6*EAVI
                     S=SUM164+SUM165+SUM166*SUM36+CAPY
                     H=SUM161+P+JVI+SUM162+SUM163*SUM36+CAPX
                     Z=(V1*P)/(RTI)
                     05MU2*86MU2-001MU2=V3
                                 (R *0VIB+5UM39*0VIB2+SUM40*0VIB3+SUM43+SUM41*0VIB5)
50
                     PPT=
                                                       (RTI*OVIB2+5UM33*OVIB3+SUM34*OVIB4
                     PPV=
                    2+SUM42*DVI85+>UM35*DVI26-AEI*SUM6)
               2001 CONTINUE
                     CP=CV-TI*J*PPT**2/(-PPV)
                     GAM=CP/CV
                     A=JVI2*TI*PPT**2/CV+VI2*PPV
                     ASQ=A+4633.056
                     G=A /(P*VI)
                     450=ABS(ASO)
                     A=SQRT(ASQ)
60
                     TK=TI*5./9.
                     VK=VI+.062427962
                     COMPUTATION OF TRANSPORT PROPERTIES
                ********************
ħ5
              C.
                     THESE TWO EQUATIONS FOR VISCOSITY AND CONDUCTIVITY MUST BE CHANGED
                     FOR LACH FREDN COMPOUND, HOWEVER INTERNALLY THE EQUATIONS HAVE BEEN PROVIDED FOR FREON 12, FREON 1381, FREON 14, AND FREON 116.
70
                     IF A DIFFERENT COMPOUND HAS BEEN SELECTED THE USER MUST OBTAIN AND INPUT THE TWO EQUATIONS OTHERWISE NO TRANSPORT PROPERTIES
                     WILL BE OUTPUT. THE TWO EQUATIONS FOR THERMAL CONDUCTIVITY AND VISCUSITY CAN BE OBTAINED FROM P.E. LILEY OF THE THERMOPHYSICAL PROPERTIES RESEARCH CENTER, PURDUE UNIVERSITY OR FROM E.I.
75
                     DU PONT DE NÉMOURS & CO.
```

```
**************
                   GU TU (69,50,69,60,55,69,69,69,69,69,65,69,69),NAME
 80
             C
                    TRANSPORT PROPERTIES FOR COL2F2 ONLY
                50 EMU=(SQRT(TK)/(.75309+188.969/TK-803.786/(TK*TK)))*1.E-6
 85
                   EK1=(2.3220*SQRT(TK))/(727.58+6.891667E5/TK+1.007883E6/(TK*TK))
                   GD TO 63
             C
                   TRANSPORT PROPERTIES FOR CF4 ONLY
                5> EMU=(SQRT(TK)/(.64625+103./TK-3.42714/(TK*TK)))*1.6-6
 90
                   EK1=1.73073+(7.291E-3+2.377E-5+((9./5.)+TK-459.67))
                   TRANSPORT PROPERTIES FOR CBRF3 ONLY
 95
                SUNITAGO 03
                   EMU=(SURT(TK)/(.63388+144.691/TK-1087.52/(TK*TK)))*1.E-6
                   IF(TK-000.)62,61,01
                62 EK1=1.73073*(G.0)41+1.6E-5*(TK*1.8-459.67))
100
                61 EK1=SQRT(TK)/(558.966+2.14363E5/TK+1.65119E7/(TK*TK)+
                  18.31701E9/(TK*TK*TK))
                   GO TO 63
               ***********************
             С
               TRANSPORT PRIPERTIES FOR C2F6 ONLY
105
                65 EMU=(12.778*SQRT(TK)-78.8)*1.E-07
                   EK1=9.5916-05*TK-.01163
                   GD TO 63
110
                  TRANSPORT PROPERTIES FOR OTHER FREDNS. EQUATIONS MUST BE INSERTED BY THE USER AND APPROPRIATE CHANGES SHOULD BE MADE IN THE COMPUTED GO TO STATEMENT ABOVE
             C.
             С
                63 CONTINUE
115
                  IF(CAPA.EQ.1.0) GO TO 70
                   GD TO 75
              *****
             С
                  THESE THREE EQUATIONS ARE USED ONLY WHEN RUNNING C2F6
120
                70 PP=432.*.06804596299
                  CK=527.5*5./9
                  VV=.0262*.062427962
                  GO TO 79
                75 PP=PC+_06804596249
125
                  CK=TC+5./9
                   VV=VC*.062427962
                79 CONTINUE
                  XI=CK++.1666667/(SQRT(EM)+PP++.66666667)
130
                  RHDR=VV/VK
                  EK1=EK1+7.18E-3*(EXP(RHOR)-1.)
                  IF(RHOR-.10)46,46,43
IF(RHOR-.90)47,47,44
             43
                  IF(RHOR-2.2)48,48,45
                  X=.6439-.1005*RHOR-4.75E-4*(RHOR**3-10.65)**2
135
                  ALG1=10.**X+3.
                  ALG2=10. ** (-ALG1)
                  EMU = (ALG2+XI*EMU)/XI
                  GO TO 40
                  EMU =(16.56E-8*RHOR**1.111+XI*EMU)/XI
140
             46
                  GD TD 40
                  EMU =(.607E-8*(9.045*RHOR+.63)**1.739+XI*EMU)/XI
             47
                  GD TD 40
                  X=.6439-.1005*RHDR
             48
145
                  ALG1=10.**X+3.
                  ALG2=10.**(-ALG1)
                  EMU =(ALG2+XI*EMU)/XI
                  GD TD 40
            C
                  IF THE VISCOSITY AND THERMAL CONDUCTIVITY EQUATIONS ARE NOT INPUT FOR THE OTHER FREON COMPOUNDS THEN MU AND K ARE SET TO ZERO ALONG
150
                  WITH THE PRANDTL NUMBER FOR THE OUTPUT
```

......

```
C ***************************
              69 EMU≠Ú.0
155
                tK1=0.0
                CONTINUE
                 IF(EMU.NE.C.J.ANJ.EKI.NE.O.O) GO TO 30
                 PR = C . C
                GD TO 31
160
              3J PR=(EMU+CP/EK1)+4133.99992
              31 CONTINUE
                CUTPUT UNIT CHECK SI DK US
165
           С
                 0,c,c (.1-CINU) 71
                SI UNITS OUTPUT CONVERSIONS
17c
                                                                           persata
               5 DUTV=VI*. 362427962
                CUTP=P*.06804596299
                 BUTS-5+44.28218- DUIS = S * (EM/1.987)
                 667H=H+++09007>416
175
                 OUTA=A*.3048
                           <del>249100</del> ЭЛІН = Н ♥ (ЕМ/975.)483)
                TUTEP-CP+AA
                 CUTT=TK
                                 60 TO 7
           C ****************************
                US UNITS OUTPUT CONVERSIONS
180
               6 EMU=LMU/1.4681639
                 EK1=EK1/6226.47794
                 OUTV=VI
185
                 CUTP=P
                 0.0TS = S
                 DUTH≠H
                 ΠLiT Δ = Δ
                 DUTCP=CP
190
                 CUTT≖TI
                 XPLOT(NN)=OUTH
                                    MSC(1910).EQ.2.) XPLOT(NN) = OUTH * (EM '976.9483)
               FIF (UNID-EG.2.) XPLOTIN
                                                                               en soto
                 YPLOT(NN) = ALOGIO(OJIP)
           195
                TABULAR DUTPUT FORMAT
                IF(FLAGOUT.NE.1.0) RETURN
200
                 IF(PLOTOUT.NE.1) RETURN
                 IF(NOENT.NE.1) GO TO 1
                 WRITE(6,100) DUTT, DUTY, DUTP, DUTH, DUTC, DUTCP, GAM, G, Z, EMU, EK1, PR
                 RETURN
                 WRITE(6,100) DUTT, DUTY, DUTP, DUTH, DUTA, DUTCP, GAM, G, Z
205
                1, EMU, EK1, PR, JUTS
             100 FORMAT(1X,F9.4,2(2X,F8.4,2X,F9.4),2X,F8.4,2(2X,F7.4),2X,F6.4,2X,
                12E11.4,2X,F6.4,2X,F7.4)
                RETURN
                 END
```

```
1
              SUBROUTINE PLINE
              SUBROUTINE PLINE COMPUTES THE SATURATION PRESSURE LINE
              DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
  5
              COMMON JA60A, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
              COMMON CV, PPT, PPV, NAME, NAME1, NAME2
              COMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
COMMON VG(2) AG(2) SG(2) FG(2) FG(2) VGN, I, N, JJ, GG(2), ASQ, AI, SI, ZI
COMMON PS, NN, XPLOT(99), YPLOT(99), GI, GTAB(99), NOB, G
COMMON CAPAS CAPB, CAPC, CAPD, CAPE, CAPF, CAPF, CAPH, CAPL, ERR
COMMON AEI, ALPHA, AVI, A2, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T,
 10
             184T4, 85, 85T, 86, 86T, C2, C2E, C3, C3E, C5, C5E, EAVI, EMKTI,
             2H, J, JB6OA, JK, JR, JVI, J2, J4, K, KTI, OVIB, OVIB2, OVIB3, OVIB4, OVIB5, P,
 15
             3R,RTI,S,SAA,SB,SBB,SC,SD,SF,SUM10,SUM11,SUM2,SUM3,SUM33,SUM34,
4SUM35,SUM4,SUM5,SUM6,SUM9,TI,TI2,TI3,TI4,VI,VIMB,VIMB2,VIMB2,
COMMON VIMB6,QVIB6,SUM36,SUM37,SUM38,SUM39,SUM40,SUM41,SUM42,
             1SUM43, VI2, JVI2, A, Z, VIMB3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
 20
              REAL K, KTI, J, JVI, J860A, J2, J4, JK, JR
              REAL JVIZ
REAL JAGOA
              COMMON PL(99), HL(99), PU(99), HU(99)
COMMON TT(99), VT(99), ST(99), ZT(99), AT(99), GT(99), PT(99), HT(99)
              COMMON TA(99), VA(99), SA(99), ZA(99), AA(99), GA(99), PA(99), HA(99)
 25
              COMMON TL (99), VL (97), SL (99), ZL (99), AL (99), GL (99), NOL, TLIM
              COMMON TU(99), VU(99), SU(99), ZU(99), AU(99), GU(99), NOU, TUIM
              TI=TTAB(N)
         30
              C2F6 CHECK
          ************************
              IF(CAPA.EQ.1.0) GO TO 1000
 35
                 C
              CBRF3 CHECK
                С
 40
              IF(CAPB.NE.1.0) GO TO 2000
         CBRF3 SATURATION PRESSURE LINE ONLY
              PS=(-44295./TI2-1795.678/TI+7.322506-0.00438339*TI
             1+0.00000312584*TI2)
        50
              PS=.3762282521E+02-.1857298724E+04/TI-.1297816132E+02*ALOG10(TI)
             1+.7340820388c-02*TI-.5937560386E+00*((.5351699999E+03-TI)/TI)
             2*ALOG10(.5351699399E+03-TI)
55
       SATURATION PRESSURE LINE FOR ALL OTHER FREONS
       C ***********************************
        2000 PS=CAPA+CAP8/T1+CAPC*ALDG10(TI)+CAPD*TI
60
             IF(CAPE.NE.O.O) PS=PS+CAPE*((CAPF-TI)/TI)*ALDG1G(CAPF-TI)
              IF(NAME. EQ. 8) PS = PS+CAPH*TI2+CAPL*TI3
        2001 CONTINUE
             PS=10.**PS
              JJ=1
65
        44
             VI=VG(JJ)
             CALL VVAR
             CALL
                   PUTV
             PG(JJ) = P
             1F(ABS(PG(JJ)-PS)-ERR*PS)70,71,71
             IF(JJ-1)72,72,43
7υ
             VG(2)=VG(1)*1.50
            GE TO 44
VGN=((VG(2)-VG(1))/(PG(2)-PG(1)))
1*(PS-PG(1))+VG(1)
75
             PG(1)=PG(2)
             VG(1)=VG(2)
             VG (2) = VGN
             60 TO 44
80
        70
             CALL PHOTV
             PETURN
             F ND
```

Ī

```
SUBROUTINE PLOT
 1
                                          **********************
                                  SUBROUTINE PLOT RELAYS THE PLOTTING INSTRUCTIONS TO THE PLOTTER
                       Ċ
                                 ************
 5
                                  DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                                   COMMON JA60A, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
                                   COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                                  COMMON CV, PPT, PPV, NAME, NAME1, NAME2
                                  COMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
10
                                  COMMON VG(2), AG(2), SG(2), ZG(2), PG(2), VGN, I, N, JJ, GG(2), ASQ, AI, SI, ZI
                                   COMMUN PS, NN, XPLOT(99), YPLOT(99), GI, GTAB(99), NOG, G
                                   COMMON CAPA, CAPB, CAPC, CAPD, CAPE, CAPF, CAPG, CAPH, CAPL, ERR
                                   COMMON AEI,ALPHA,AVI,A2,A3,A4,A5,A6,B2,B2T,B3,B3T,B4,B4T,
                                18474,85,857,86,867,C2,C2E,C3,C3E,C5,C5E,EAVI,EMKTI,
2H,J,J860A,JK,JR,JVI,J2,J4,K,KTI,OVIB,OVIB2,OVIB3,OVIB4,OVIB5>P,
15
                                3R, RTI, S, SAA, SB, SB, SC, SD, SF, SUMID, SUMID, SUMO, SUM
                                  CCMMON VIMB6, OVIB6, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42,
                                1SUM43, VI2, JVI2, A, Z, V1M83, V1M833, V1M84, V1M844, V1M85, V1M855
                                  REAL K, KTI, J, JVI, JB60A, J2, J4, JK, JR
20
                                  REAL JVIZ
REAL JAGOA
                                  XPLOT(NN+1)=0.
                                  XPLOT(NN+2)=1.
25
                                   YPLOT(NN+1)=-3.
                                   YPLOT(NN+2)=.2
                                   CALL LINPLT(XPLOT, YPLOT, NN, 1, 0, 0, 1, 0)
                                  END
  1
                                   SUBROUTINE PUTY
                       CI
                                                         ***********
                       CI
                                   SUBROUTINE PUTV COMPUTES P=F(T,V), PRESSURE AS A FUNCTION OF
                                   T AND V
  5
                                  DIMENSION TTAB(94), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                               . CCMMON JA6DA, SUM16J, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
                                  COMMON SUM161, SUM162, SUM163, SUM164, SUM163, SUM166, CAPY, CAPX, TC
                                   COMMON CV, PPT, PPV, NAME, NAME1, NAME2
1 υ
                                   COMMON NOT, TTAB, NUV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
                                  CUMMUN VG(2),AG(2),SG(2),ZG(2),PG(2),VGN,I,N,JJ,GG(2),ASQ,AI,SI,ZI
COMMON PS,NN,XPLOT(99),YPLOT(99),GI,GTAB(99),NOG,G
COMMON CAPA,CAPB,CAPC,CAPD,CAPE,CAPF,CAPG,CAPH,CAPL,ERR
                                   COMMON AEI, ALPHA, AVI, A2, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, 64T,
                                 164T4,85,65T,66,86T,C2,C2E,C3,C3E,C5,C5E,EAVI,EMKTI,
15
                                 2H, J, JB6OA, JK, JR, JVI, J2, J4, K, KTI, OVIB, UVIB2, OVIB3, OVIB4, OVIB5, P,
                                 3k,RT1,S,SAA,SB,SBB,SC,SD,SFeSUM10,SUM11,SUM2,SUM3,SUM3,SUM34,
4SUM3>,SUM4,SUM5,SUM6,SUM9,TI,TI2,TI3,TI4,VI,VIMB,VIMB2,VIMB22
                                  espruc, 14muz, 04muz, 96muz, 86muz, 76muz, 66muz, 66muz, 66muz
                                 1SUM43,VI2,JVI2,A,Z,VIMB3,VIMB33,VIMB4,VIMB44,VIMB5,VIMB55
20
                                  REAL K,KT1, J, JVI, J360A, J2, J4, JK, JR
REAL JVIZ
REAL JA60A
                                   COMMON PL(99),HL(99),PU(99),HU(99)
25
                                   CAMMON T[(99),VT(99),ST(99),ZT(99),AT(99),GT(99),PT(99),HT(99)
                                   COMMON TA(99), VA(99), SA(99), ZA(99), AA(99), GA(99), PA(99), HA(99)
                                  COMMON TE(99), VE(97), SE(99), ZE(97), AE(97), GE(47), NOE, TEEM
COMMON TU(99), VU(97), SU(99), ZU(99), AU(99), GU(99), NOE, TUEM
                                   VI3=VI2*VI
                                   VI4=VI2*VI2
30
                                                                ************
                                  C2F6 CHECK
                           **********
35
                                   IF(CAPA. EG. 1.J) GO TJ 1000
                       c
                                                     *************
                                  CBRF3 CHECK
```

```
40
                 IF(CAPB.NE.1.C) GO TO 2000
           c
             *************************
                 P=F(T,V) FOR CBRF3 ONLY
45
           P=-2.49597/VI2+0.0274558/VI3-0.00017894/VI4
                1+TI*(0.072647/VI+0.00219617/VI2-0.003024787/VI3
                2+C.OCCUOJ2155/VI4)-(5.877E6/VI2-2.617E3/VI4)/TI3
50
            1000 CONTINUE
           C *********************************
                P=F(T,V) FOR C2F6 ONLY
           C **********************************
                P=(.07775539769*TI)/(VI-.008223681553)-(38.20276942)/(VI*(VI+
55
               1.008223681553) *SART(TI))
                GO TO 2001
           P=F(T,V) FOR ALL OTHER FREONS
           C ***********************************
60
            2000 P=RTI+OVIB+SUM2+OVIB2+SUM3+OVIB3+SUM4+OVIB4+SUM5+OVIB5+SUM6+EAVI
            2001 CONTINUE
                RETURN
                END
                SUBROUTINE SLINE
                SUBROUTINE SLINE COMPUTES LINES OF CONSTANT SENTROPY
                DIMENSION TTAB(97), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
 ٥
                COMMON JAGDA, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
                COMMUN SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                COMMON CV, PPT, PPV, NAME, NAME1, NAME2
                COMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
                COMMON PS,NN,XPLOT(99),YPLOT(99),GI,GTAB(99),NOG,G
10
                COMMON CAPA, CAPB, CAPC, CAPD, CAPE, CAPF, CAPG, CAPH, CAPL, ERR
                COMMON AEI, ALPHA, AVI, AZ, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T,
               184T4, 85, 35T, 86, 86T, C2, C2E, C3, C3E, C5, C5E, EAVI, EMKTI,
               2H, J, JB6OA, JK, JR, JVI, J2, J4, K, KTI, OVIB, OVIB2, OVIB3, OVIB4, OVIB5, P,
15
               3k,RTI,S,S4A,SB,S6B,SC,SD,SF,SUM10,SUM11,SUM2,SUM3,SUM33,SUM34,
               4SUM35, SUM4, SUM5, SUM6, SUM9, TI, TI2, TI3, TI4, VI, VIMB, VIMB2, VIMB22
                COMMON VIMB6, DVIB6, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42,
               15UM43, VI2, JVI2, A, Z, V1MB3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
                CUMMON/BOUND/FLAGOUT, NOENT
2 C
                KEAL KOKTIOJOJVIOJ860A0J20J40JKOJR
                REAL JVI2
REAL JA60A
                COMMUN PL(99), HL(99), PU(99), HU(99)
                COMMON TT(99), VT(99), ST(99), ZT(99), AT(99), GT(99), PT(99), HT(49)
25
                CUMMON TA(99), VA(99), SA(99), ZA(99), AA(99), GA(99), PA(99), HA(99)
                COMMON TL(99), VL(99), SL(99), ZL(99), AL(99), GL(99), NOL, TLIM
                COMMON TU(99), VU(99), SU(99), ZU(99), AU(99), GU(99), NOU, TUIM
                COMMON LNCT
                DO 2 N=1.NOT
30
                TI=TTAB(N)
                CALL TVAR
                VI=VG(JJ)
                IF (VI.LE.SB) VI = SB * 1.05
35
                CALL VVAR
                     SOTV
                CALL
                SG(JJ)=S
```

```
IF (AdS(SG(JJ)-SI)-ERX+SI)70,71,71
                  If (JJ-1)72,72,43
40
             71
                  JJ=2
             72
                  VC(2)=VG(1)*.8
                  CG TU 44
             43
                  VGN=((VG(2)-VG(1))/(SG(2)-SG(1)))
44
                 1*(SI-SG(1))+VG(1)
                  SG(1) = SG(2)
                  VG(1)=VG(2)
                  VG (2) = VGN
                  GE TO 44
                  CALL PHOTY
                  LNCT=LNCT+1
                  IF(LNCT-46) 2,101,101
              101 IF (N.EQ.NOT) RETURN
                                              OUTS = STAB(I) * (EM/1.987)
                  -LUTS-STAU(1) $44.2091 HIL
55
                  IF (UNID.GT.1.) DUTS=STAB(I)
                 *********
                  FEADER INSTRUCTIONS FOR CONTINUATION TABLES
                  IF (NGENT. E0%1) 40 TO 1000
60
                  WRITE(6,100)DUTS
              100 FORMAT(1H1,52X,4HS/R=,F7,4,//,5X,+T+,1CX,+V+,9X,+P+,1CX,+H+,9X,+4+,
                 18x, *CP/R*, 5x, *GA MMA*, 6x, *G*, 7X, *Z*, 11x, *MU*, 9X, *K*, 8X, *NPR*, 5X,
                 2*S/R*,71
                  60 TO 2000
65
             1000 CONTINUE
                  WKITE(6,116) JUTS
              110 FCRMAT(||1,52X,4HS/R=,F7.4,//,5X,*T*,10X,*V*,9X,*P*,1CX,*H*,9X,*A*,
18x,*CF/P*,5X,*GAMMA*,5X,*G*,7X,*Z*,11X,*MU*,9X,*K*,3X,*NPR*,/)
             2005 LNCT=5
70
                  CENTINUE
                  RETURN
                  t ND
 1
                  SUBFOUTINE SUTV
           C
                 ************
           С
                  SUBROUTINE SOLV COMPUTES S=F(T,V), ENTROPY AS A FUNCTION
           C.
                  OF T AND V
 5
              **************
           r
                  DIMENSION TTA3(94), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                  COMMON SUM161, SUM162, SUM163, SUM164, SUM164, SUM166, SUM160, CAPY, CAPX, TC
                  COMMON CV, PPT, PPV, NAME, NAME1, NAME2
10
                  COMMUN NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NDA, ATAB, VIG
                  CCMMON VG(2), AG(2), SG(2), ZG(2), PG(2), VGN, I, N, JJ, GG(2), ASJ, AI, SI, ZI
                  COMMON PS, NN, XPLOT(99), YPLOT(99), G1, GTAB(99), NOG, G
                  COMMON CAPA, CAPB, CAPC, CAPD, CAPE, CAPF, CAPG, CAPH, CAPL, ERR
                  COMMON AEI, ALPHA, AVI, A2, A3, A4, A5, A6, 32, B2T, B3, B3T, B4, B4T,
15
                 184T4,85,85T,86,86T,C2,C2E,C3,C3E,C5,C5E,EAVI,EMKTI,
                 2H, J, JB6OA, JK, JR, JVI, J2, J4, K, KTI, OVIB, OVIB2, OVIB3, OVIB4, OVIB5, P,
                 3R,RTI,S,SAA,SB,SBB,SC,SD,SF,SUM10,SUM11,SUM2,SUM3,SUM33,SUM34,
4SUM35,SUM4,SUM5,SUM6,SUM9,T1,T12,T13,T14,V1,V1MB,V1MB2,V1MB22
COMMON VIMB6,OVIB6,SUM36,SUM37,SUM38,SUM39,SUM40,SUM41,SUM42,
                 1SUM43, VI2, JVI2, A, Z, VIMB3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
                  REAL K, KTI, J, JVI, JB60A, J2, J4, JK, JR
                  PEAL JVI2
                  PEAL JAGUA
                  VI3=VI2+VI
25
           Ċ
                                ***************
           C
                  CZF6 CHECK
              *******************
           С
           C.
                  IF(CAPA.EQ.1.0) GO TO 1000
30
             ***********************
            C
                  CBRF3 CHECK
              **************************
            C
35
                  IF(CAPB.NE.1.0) GO TO 2000
            C
            C
                                           S=F(T.V) FOR CBRF3 ONLY
```

all south

```
S=0.040295239*ALUG10(TI)+0.000194*TI-4.175E-8*TI2-3.2626694E6
 40
                  1/(VI*TI4)+0.4842837E3/(VI3*TI4)+0.030699247*AL0G10(VI)
                  2-U.00040640785/VI+2.2934544E-6/VI2-1.3292974E-8/VI3-0.06216190
                   GD TO 2001
              1000 CONTINUE
 45
               ************************
                   S=F(T,V) FOR C2F6 ONLY
                  *************
                   8 € TA = . 00 8 223681553
                   ALP=38.20276942
50
                   S=0.02378775437*ALDG(TI)+.000346365133*TI-.14211084E-06*TI2/2.
                  1+.7611753554E-11+TI3/3.+JR*ALOG(VI-BETA)-(J*ALP/(2.*bETA*TI**1.5))
                  2 *ALOG((VI+BETA)/VI)-.15857+.26902175E+03/(2.*TI2)
                   GO TO 2001
55
                   S=F(T,V) FOR ALL OTHER FREONS
             C *********************************
              2000 S=SUM164+SUM165+SUM166*SUM36+CAPY
              2001 CONTINUE
                   RETURN
                   GW 4
ht.
                  SUBROUTING TLINE
 1
                  SUBROUTINE TLINE COMPUTES LINES OF CONSTANT T. TEMPERATURE
                  DIMENSION TTAB(99), VIAB(99), STAB(99), 2TAB(99), ATAB(99)
                  COMMON JA60A, SUM160, PC, VC, EM, UNIO, FT, CT, PS FOP, PLOTOUT
                  CUMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                  CCMMON CV, PPT, PPV, NAME, NAME1, NAME2
                  COMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
COMMON VG(2), AG(2), SG(2), ZG(2), PG(2), VGN, I, N, JJ, GG(2), ASQ, AI, SI, ZI
COMMON PS, NN, XPLOT(99), YPLOT(99), GI, GTAB(99), NGG, G
10
                  COMMON CAPA, CAPB, CAPC, CAPD, CAPE, CAPF, CAPG, CAPH, CAPL, ERR
                  COMMON AET, ALPHA, AVI, AZ, A3, A4, A5, A6, B2, B2, B2, B3T, B4, B4T,
                  184T4,65,85T,80,80T,C2,C2E,C3,C3E,C5,C5E,EAVI,EMKTI,
                  2H, J, JP60A, JK, JR, JVI, J2, J4, K, KTI, OVIB, OVIB2, OVIB3, OVIB4, UVIB5, P,
1,
                  3K, RTI, S, 5AA, SB, SBB, SC, SD, SF, SUM10, SUM11, SUM2, SUM3, SUM33, SUM34,
                  4SUM35,SUM4,SUM5,SUM6,SUM9,TI,TI2,TI3,TI4,VI,VIMB,VIMB2,VIMb22
                  CAMMON AIMBO, DAIRO, CRMOS, SCMOS, SCMOS, SCMOS, SCMAC, SCMAI)
                  1SUM43, VI2, JVI2, A, Z, VIMB3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
2¢
                  KEAL K,KTI,J,JVI,JB6JA,J2,J4,JK,JR,JVI2,JA6DA
                  TI=TTAB(N)
                  CALL TVAR
LO 2 I=1,NOV
                  VI=VTAB(I)
                  CALL VVAR
25
                  CONTINUE
             2
                  RETURN
                  END
```

```
1
                        SUBROUTINE TVAR
                r
                        SUBROUTINE TWAR COMPUTES THE TERMS IN THE THERMODYNAMIC EQUATIONS INVOLVING T, EXCEPT FOR THE COMPOUNDS CBRF3 AND C2F6
  5
                        DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                        COMMON JAGOA, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
                        COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                        COMMON CV, PPT, PPV, NAME, NAME1, NAME2
                        COMMON NOT, TTAB, NOW, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
COMMON VG(2), AG(2), SG(2), ZG(2), PG(2), VGN, I, N, JJ, GG(2), ASO, AI, SI, ZI
COMMON PS, NN, XPLOT(99), YPLOT(99), GI, GTAB(99), NOG, G
COMMON CAPA, CAPB, CAPC, CAPD, CAPE, CAPF, CAPG, CAPH, CAPL, ERR
10
                       COMMON AEI, ALPHA, AVI, A2, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T, B4T4, B5, B5T, B6, B6T, C2, C2E, C3, C3E, C5, C5, C5, EAVI, EMKTI,
15
                       2H, J, JB60A, JK, JR, JVI, J2, J4, K, KTI, OVIB, OVIB2, OVIB3, OVIB4, OVIB5, P,
                      3R, RTI, S, SAA, SB, SBB, SC, SD, SF, SUM10, SUM11, SUM2, SUM3, SUM33, SUM34,
                      4SUM35, SUM4, SUM5, SUM6, SUM9, TI, TI2, TI3, TI4, VI, VIMB, VIMB2, VIMB2
                        COMMON VIMB6, DVIB6, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42,
                      1SUM43, VI2, JVI2, A, Z, VIMB3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
20
                       REAL K,KTI,J,JVI,JB60A,J2,J4,JK,JR
REAL JVI2
REAL JA60A
                        COMMON PL(99), HL(99), PU(99), HU(99)
25
                        COMMUN TT(99), VT(99), ST(99), ZT(99), AT(99), GT(49), PT(99), HT(99)
                        COMMON TA(99), VA(99), SA(99), ZA(99), AA(99), GA(99), PA(99), HA(99)
                        COMMON TL(99), VL(99), SL(99), ZL(99), AL(99), GL(99), NOL, TLIM
                        COMMON TU(99), VU(99), SU(99), ZU(99), AU(99), GU(99), NDU, TÜİM
                        T12=T1+T1
30
                        TI3=TI2+TI
                        T14=T12+T12
                       RTI=R*TI
                       *******
                       T TERMS FOR CBRF3 AND C2F6 ARE HANDLED IN ROUTINES CBRF3 AND C2F6
35
               C
                       IF(CAPA.EQ.O.O.OR.CAPB.EQ.O.O) RETURN
                       KTI=K*TT
                       IF(-KTI+675.84) 784,788,788
                  789 EMKTI*0
40
                       GD TD 790
                  788 EMKTI=EXP(-KTI)
                       CONTINUE
                       SUM38=JK*KTI*EMKTI
                       C2E=C2+EMKTI
                       C3E=C3*EMKTI
C5E=C5*EMKTI
45
                       62T=82*TI
                       B3T=B3*TI
                       B4T=B4*TI
50
                       85T=85*TI
                       86T=86*TI
                       SUM2=A2+B2T+C2E
                       SUM3=A3+B3T+C3E
SUM4=A4+B4T
                       SUM42=4. +SUM4
SUM5=A5+B5T+C5E
55
                       SUM6=A6+BoT
                       SUM33=2. + SUM2
                       SUM34=3. * SUM3
                       SUM35=5.*SUM5
66
                       SUM39=B2-K+C2c
                       SUM9=J*SUM39
                       SUM40=83-K*C3E
                       SUM10=J2*SUM40
                       SUM41=B5-K*C5E
65
                       SUM11=J4*SUM41
                       SUM163=J*EMKTI*(1.+KTI)
                       SUM166=JK+EMKTI
                       SUM16C = SAA+SBd + TI+$C + TI2+$D + TI3
                       SUM161=SAA*TI+SBB*TI2/2.+SC*TI3/3.+SD*TI4/4
76
                       SUM164=SAA*ALOG(TI)+SBB*T1+SC*TI2/2.+SD*TI3/3.
                       IF(SF.EQ.O.O) GD TO 100
                       SUM160=SUM160+SF/T12
                       SUM161 = SUM161 - SF/TI
75
                       SUM164=SUM164-SF/(2.*TI2)
                  100 CONTINUE
                       PETURN
                       END
```

```
SUBROUTINE VLINE
 1
               С
                                    ************
                 SUBPOUTINE VLINE COMPUTES LINES OF CONSTANT V, VOLUME
 5
                      DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                      COMMON JA60A, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                      COMMON CV, PPT, PPV, NAME, NAME1, NAME2
                      COMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
                      COMMON VG(2),AG(2),SG(2),ZG(2),PG(2),VGN,I,N,JJ,GG(2),ASQ,AI,SI,ZI
COMMON PS,NN,XPLOT(99),YPLOT(99),GI,STAB(99),NOG,G
COMMON CAPA,CAPB,CAPC,CAPD,CAPE,CAPF,CAPG,CAPH,CAPL,ERR
16
                      CDMMON AEI, ALPHA, AVI, A2, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T,
                     1B4T4,B5,B5T,B6,B6T,C2,C2E,C3,C3E,C5,C5E,EAVI,EMKTI,
15
                     2H, J, JB6OA, JK, JR, JVI, J2, J4, K, KTI, OVIB, OVIB2, OVIB3, OVIB4, OVIB5, P,
                     3R, RTI, S, SAA, SB, SBB, SC, SD, SF, SUM10, SUM11, SUM2, SUM3, SUM33, SUM34,
                     4SUM35, SUM4, SUM5, SUM6, SUM9, TI, TI2, TI3, TI4, VI, VIMB, VIMB2, VIMB22
                      COMMUN VIMB6, OVIB6, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42,
                     1SUM43, VI2, JVI2, A, Z, VIMB3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
                      REAL KOKTIOJOJVIOJ860A, J2, J4, JK-JROJVIZ, JA60A
                      (I) SATV=IV
                      CALL VVAR
                      DD 2 N=1, NOT
                      TI=TTA8(N)
25
                     CALL TVAR
                      CONTINUE
               2
                      RETURN
                      END
                      SUBROUTINE VVAR
 1
              C
                 *************
                     5
              C.
                      DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                      COMMON JA6OA, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                      COMMON CV, PPT, PPV, NAME, NAME1, NAME2
                      COMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
10
                      COMMON VG(2),AG(2),SG(2),ZG(2),PG(2),VGN,1,N,JJ,GG(2),ASQ,AI,SI,ZI
COMMON PS,NN,XPLOT(99),YPLOT(99),GI,GTAB(99),NOG,G
COMMON CAPA,CAPB,CAPC,CAPD,CAPE,CAPF,CAPG,CAPH,CAPL,ERR
                    COMMON AEI, ALPHA, AVI, A2, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T, B4T4, B5, B5T, B6, B6T, C2, C2E, C3, C3E, C5, C5E, EAVI, EMKTI,
15
                    2H, J, JB6OA, JK, JR, JVI, J2, J4, K, KTI, OVIB, OVIB2, OVIB3, OVIB4, OVIB5, P,
                    3R, RTI, S, SAA, SB, SBB, SC, SD, SF, SUM10, SUM11, SUM2, SUM3, SUM33, SUM34,
                     4SUM35, SUM4, SUM5, SUM6, SUM9, TI, TI2, TI3, TI4, VI, VIMB, VIMB2, VIMB22
                      COMMON VIMB6, DVIB6, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42,
20
                    15UM43, VI2, JV12, A, Z, VIMB3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
                      REAL K, KTI, J, JVI, JB60A, J2, J4, JK, JR
                      REAL JVI2
                      REAL JA6DA
                      COMMON PL(99), HL(99), PU(99), HU(99)
                      COMMON TT(99), VT(99), ST(99), ZT(99), AT(99), GT(99), PT(99), HT(99)
25
                      COMMON TA(99), VA(99), SA(99), ZA(99), AA(99), GA(99), PA(99), HA(99)
                      COMMON TL (99), VL (99), SL (99), ZL (99), AL (99), GL (99), NOL, TLIM
                      COMMON TU(99), VU(99), SU(99), ZU(99), AU(99), GU(99), NOU, TUIM
                      IV*L=IVL
30
                      VI2=VI+VI
                      JVI2=J+VI2
              C V TERMS FOR CBRF3 AND C2F6 ARE HANDLED IN ROUTINES CBRF3 AND C2F6
                     IF(CAPA.EQ.O.O.OR.CAPB.EQ.O.O) RETURN
                      VIMB=VI-SB
                      VIMB2=VIMB*VIMB
                      VIMB3=VIMB2*VIMB
```

I

```
VIMB4=VIMB2*VIMB2
                     VIMB5=VIMB2+VIMB3
                     VIMB6=VIMB3+VIMB3
                     VIMB22=VIMB2*2.
                    VIMR33=VIMB3*3.
                     VIMB44=VIMB4+4
45
                    VIMB55=V1MB5*5.
                    GVIB=1./VIMB
                     GVIB2=1./VIMB2
                     OVIB3=1./VIMB3
                    OVIB4=1./VIMB4
50
                    CVIBS=1./VIM35
                    0 V I d 6 = 1 . / V I M 9 6
                     SUM36=C2/VIM3+C3/VIM822+C5/VIM844
                    AVI=ALPHA*VI
                    IF(AVI+675.84) 8+1,892,892
55
                891 EAVI=0
                    GD TO 893
                892 EAVI=EXP(AVI)
                893 CUNTINUE
                    SUM43=86*EAVI+84*DVI84
60
                    AEI=ALPHA+EAVI
                    SUM162=J*(A2/VIN3+A3/VIM822+A4/VIM833+A5/VIM844)-JA60A*EAVI
SUM162=-J*(B2/VIM8+33/VIM822+B4/VIM833+B5/VIM844)+JB60A*EAVI
                   1+JR+ALOG(VIMB)
                    PETURN
65
                    END
                    SUBPOUTINE ZLINE
 1
                                  ***************
             C
                    SUBROUTINE ZLINE COMPUTES LINES OF CONSTANT Z. COMPRESSIBILITY
                    DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
                    COMMON JA60A, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
                    COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
                    COMMON CV. PPT. PPV. NAME, NAME1, NAME2
                    COMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, 4TAB, VIG
                    COMMON PS,NN,XPLOT(99),YPLOT(99),GI,GTAB(99),NOG,QI,ASQ,AI,SI,ZI
10
                    COMMON CAPA, CAPB, CAPC, CAPD, CAPE, CAPF, CAPG, CAPH, CAPL, ERR
                    COMMON AEI, ALPHA, AVI, AZ, A3, A4, A5, A6, B2, B2T, B3, B3T, B4, B4T,
                   184T4,85,85T,86,86T,C2,C2E,C3,C3E,C5,C5E,EAVI,EMKTI,
15
                   2H, J, JB6OA, JK, JR, JVI, J2, J4, K, KTI, OVIB, OVIB2, OVIB3, OVIB4, OVIB5, P,
                   3k,RTI,S,SAA,SB,SBB,SC,SD,SF,SUM10,SUM11,SUM2,SUM3,SUM33,SUM34,
4SUM35,SUM4,SUM5,SUM6,SUM9,TI,TI2,TI3,TI4,VI,VIMB,VIMB2,VIMB22
                    COMMON VIMBO, OVIBO, SUM36, SUM37, SUM38, SUM39, SUM40, SUM41, SUM42,
                   15UM43, VI2, JVI2, A, Z, VIMb3, VIMB33, VIMB4, VIMB44, VIMB5, VIMB55
20
                    REAL K, KTI, J, JVI, JB60A, JZ, J4, JK, JR, JVI2, JA60A
                    ZI=ZTAB(I)
                    DU 2 N=1, NOV
                    VI=VTAB(N)
                    CALL VVAR
25
                    JJ=1
TI=VG(JJ)
                    CALL TVAR
                    ZG(JJ) = Z
30
                    IF(ABS(ZG(JJ)-ZI)-ERR+ZI)70,71,71
               71
                    IF(JJ-1)72,72,43
               72
                    JJ = 2
                    VG(2)=VG(1)*1.05
                    GD TO 44
                    VGN=((VG(2)-VG(1))/(ZG(2)-ZG(1)))
35.
                   1*(Z1-ZG(1))+VG(1)
                    IF(VGN)46,46,45
               46
                    VGN=.5*VG(2)
                    ZG(1)=ZG(2)
40
                     VG(1)=VG(2)
                    VG (2)=VGN
                    GO TO 44
                    CALL PHOTY
               70
45
                    RETURN
                    END
```

```
1
                                      SUBROUTINE ZOTV-
                                                            ************************
                         SUBROUTINE ZOTY COMPUTES Z=F(T,V), COMPRESSIBILITY AS A FUNCTION
                                      OF T AND V
                         C ******************************
                                     DIMENSION TTAB(99), VTAB(99), STAB(99), ZTAB(99), ATAB(99)
COMMON JA6OA, SUM160, PC, VC, EM, UNIO, FT, CT, PSTOP, PLOTOUT
COMMON SUM161, SUM162, SUM163, SUM164, SUM165, SUM166, CAPY, CAPX, TC
COMMON CV, PPT, PPV, NAME, NAME1, NAME2
10
                                      COMMON NOT, TTAB, NOV, VTAB, NOS, STAB, NOZ, ZTAB, NOA, ATAB, VIG
                                      COMMON VG(2),AG(2),SG(2),ZG(2),PG(2),VGN,IN,JJ,GG(2),ASQ,AI,SI,ZI
COMMON PS,NN,XPLOT(99),YPLOT(99),GI,GTAB(99),NOG,G
                                   15
                            TSUM33, SUM39, SUM39, SUM36, SUM36, SUM38, SUM39, SUM40, SUM41, SUM42, SUM40, S
20
                                     C2F6 CHECK
                             *************************
25
                         C
                                      IF(CAPA.FQ.1.0) GO TO 1000
                         c
                         С
                                     CBRF3 CHECK
                             **********************
30
                                        IF(CAPB.NE.1.0) GO TO 2000
                                                                                    ***********
                                    Z=F(T,V) FOR CBRF3 ONLY
35
                         VI3=VI2*VI
                                     VI4=VI2*VI2
                                      V15=V12*V13
                                      P=-2.49597/VI2+0.0274558/VI3-0.00017894/VI4
                                    1+T1*(0.072047/VI+0.00219617/VI2-0.000024787/VI3
2+C.0000002155/VI4)-(5.877E6/VI2-2.617E3/VI4)/TI3
                                     GO TO 2001
                           1000 CONTINUE
                                                                                  *************
45
                                     Z=F(T,V) FOR C2F6 JNLY
                         C *********************************
                                     P=(.07775539709*TI)/(VI-.008223681553)-(38.20276942)/(VI+(VI+
                                    1.CO8223681553)*SQPT(TI))
50
                                     GO TO 2001
                         Z=F(T,V) FOR ALL OTHER FREONS
                         C *******************************
                           2000 P=RTI+UVIB+SUM2*UVIB2+SUM3*UVIB3+SUM4*UVIB4+SUM5*QVIB5+SUM6*EAVI
55
                           2001 CONTINUE
                                     Z=(VI+P)/(RT1)
                                     RETURN
                                     END
```

ı

APPENDIX B

CONSTANTS FOR THERMODYNAMIC EQUATIONS

FOR TEN FLUOROCARBONS

The computer program listed in appendix A contains a general set of thermodynamic equations applicable to all the fluorocarbons selected except CBrF3 and CF3-CF3 whose respective equations are given in the report along with their constants. Built into the computer code are all the thermodynamic constants and thereby the user input is minimized.

Tables B1 to B3 list the constants (converted from U.S. Customary Units to SI Units) for each equation and for each fluorocarbon (refs. 8, 9, and 10).

Constant						bon -		
Constant	CC13F	CCl ₂ F ₂	CF ₄	. CHC12F	CHF ₃	CC12F-CC1F2	CC1F2-CC1F2	C ₄ F ₈
R b A B C A B C A B K B C A B K B C A B K B C A B K	-9.6 × 10 ⁻² -4.25 × 10 ⁻² 1.47 × 10 ⁻⁴ 2.05 × 10 ⁰	7.71 × 10 ² 7.71 × 10 ³ -1.53 × 10 ³ 1.01 × 10 ⁻¹ -5.67 × 10 ⁻⁵ 2.20 × 10 ⁰ -5.74 × 10 ⁻⁵ 0 4.08 × 10 ⁻¹¹	1.03 × 10-1 -5.08 × 10-2 7.39 × 10-3 3.87 × 10-5 9.05 × 10-1 2.01 × 10-8 7.39 × 10-8	-1.96 × 10 ² 2.2 × 10 ⁻¹ 0 -3.42 × 10 ⁻³ 0 0 0 0	-1.25 × 10 ² 1.68 × 10 ⁻¹	3.59 × 10 ⁻² 1.51 × 10 ⁻⁴ 0 0 0	3.87 × 10 ⁻⁵ -6.41 × 10 ¹ 5.22 × 10 ⁻² -1.76 × 10 ² -1.76 × 10 ² -1.61 × 10 ⁻⁵ 2.75 × 10 ⁻¹ -4.04 × 10 ⁻⁵ 0 1.04 × 10 ⁻⁸ 7.37 × 10 ⁻¹²	1 0 72 0 10
B ₆ K	-1.17 × 10 ⁹ 9.55 × 10 ⁻³ -9.29 × 10 ³	0 1.42 × 10 ⁻²	_1 En v 1n ^y	0	-1.38 × 10 ⁹ 1.84 × 10 ⁻² -9.29 × 10 ³	ا آ	7.16 × 10 ⁻³	0 1.29 × 10

TABLE B1.- THERMODYNAMIC CONSTANTS FOR EQUATION OF STATE

TABLE B2.- THERMODYNAMIC CONSTANTS FOR HEAT CAPACITY OF VAPOR, ENTROPY, AND ENTHALPY

Constan	•		Value	of constant	for fluoroca	rbon -	-	
Joonstan	CC13F	cc1 ₂ F ₂	CF ₄	CHC1 ₂ F	CHF ₃	CC12F-CC1F	CC1F2-CC1F2	C4F8
X bu cu cu au	1.46 × 10 ⁻⁷ -4.35 × 10 ⁵	0 10 1 = 6.92 × 10 1	-3.82 × 10 ⁻⁵ -7.21 × 10 ⁻⁸	0	5.22 × 10 ⁻⁴ -5.99 × 10 ⁻⁷	3.33 × 10 ² 8.73 × 10 ⁻¹ 0 0 0 -1.69 × 10 ³ 5.86 × 10 ⁴	-2.23 × 10 ⁻⁶	9.42 × 10 ¹ 2.78 × 10 ⁰ -2.20 × 10 ⁻⁶ 5.25 × 10 ⁻⁸ 0 -7.04 × 10 ² 2.84 × 10 ⁴

APPENDIX B

TABLE B3.- THERMODYNAMIC CONSTANTS FOR VAPOR PRESSURE EQUATION

Constant			Value	of constant	for fluorocar	bon -								
Constant	CC1 ₃ F	3 22 4 2 3 2 9 2 6												
A B C D	4.21 × 10 ¹ -2.41 × 10 ³ -1.28 × 10 ¹ 7.21 × 10 ⁻³ 3.14 × 10 ⁻²	3.99 × 10 ¹ -1.91 × 10 ³ -1.25 × 10 ¹ 8.51 × 10 ⁻³	2.07 × 10 ¹ -1.37 × 10 ³ -4.69 × 10 ⁰ 1.17 × 10 ⁻³ 7.71 × 10 ⁻¹	4.28 × 10 ² -2.37 × 10 ³ -1.30 × 10 ¹ 7.18 × 10 ⁻³	3.29 × 10 ² -4.42 × 10 ³ -1.45 × 10 ² 4.36 × 10 ⁻¹	3.31 × 10 ¹ -2.41 × 10 ³ -9.26 × 10 ⁰ 3.69 × 10 ⁻³	2.71 × 10 ¹ -2.84 × 10 ³ -6.31 × 10 ⁰ 1.24 × 10 ⁻³ 7.81 × 10 ⁻¹	1.56 × 10 ¹ -2.39 × 10 ³ -2.13 × 10 ⁰ -2.16 × 10 ⁻³ 6.63 × 10 ⁻¹						
F G L	4.79 × 10 ²	0	2.36 × 10 ²	0 0	0 -6.89 × 10 ⁻¹⁴ 5.50 × 10 ⁻⁷	0 0	4.27 × 10 ²	3.97 × 10 ²						

APPENDIX C

THERMODYNAMIC PROPERTIES FOR ISENTROPIC EQUILIBRIUM EXPANSIONS OF

BINARY MIXTURES OF CBrF3-ARGON AND CC12F2-ARGON

Binary mixtures of fluorocarbons and argon are being used as substitute gases to simulate high-temperature air flows in the flight Mach number range between 4 and 10 (refs. 3 and 4). The properties of these mixtures are easily computed if it is shown that compressibility effects on the fluorocarbons in the range of interest are small.

The tabulated thermodynamic properties of both CBrF $_3$ and CCl $_2$ F $_2$ show that in the range covered by the experimental tests (T < 600 K and p < 0.5 atm), pressure effects can be neglected. Therefore, these two fluorocarbons can be considered thermally perfect over this range and their thermodynamic properties; namely s, h, and c $_p$ may be considered as functions of temperature only. An existing computer code is available that will handle mixtures of thermally perfect species and compute equilibrium rocket expansions.

Results using the computer code of reference 6 are tabulated for two representative cases; one for the ${\rm CBrF_3}$ -argon mixture and one for the ${\rm CCl_2F_2}$ -argon mixture.

TABLE C1.- CBrF₃-ARGON ISENTROPIC EQUILIBRIUM EXPANSION
[All values are in SI Units]

	Chamber	Throat	Exit	Exit	Exit	Exit	Exit	Exit	Exit	Exit	Exit	Exit	Exit
Chamber pressure/p	1.0000	1.7575	5.0528	8.1117	11.410	14.930	18.650	22.550	39.678	58.817	79.599	107.54	137.3
p	5.0626	2.8805	1.0019	0.6241	0.4437	0.3391	0.2715	0.2245	0.1276	0.0861	0.0636	0.0471	0.036
r	622	572	487	452	427	409	394	382	346	323 3.0652 × 10 ⁻⁴	306	289	27
	9.3665 × 10 ⁻³	5.7949 × 10-3	2.3694 × 10-3	1.5907 × 10-31	1.1948 × 10 ⁻³	9.5422 × 10-4	7.9265 × 10 ⁻⁴	6.7679 × 10-4	4.2382 × 10 ⁻⁴				1.5344 × 10
,	-778.8	-785.81	-797.6	-802.3	-805.4	-807.8	-809.7	-811.2	-815.5	-818.3		-822.2	-823.
•	0.6481	0.6481	0.6481	0.6481	0.6481	0.6481	0.6481	0.6481	0.6481	0.6481		0.6481	0.648
M	94.429	94.429	94.429	94.429	94.429	94.429	94.429	94.429	94.429	94.429		94.429	94.42
3	0.1430	0.1403	0.1345	0.1316	0.1294	0.1275	0.1260	0.1247	0.1205	0.1175	0.1151	0.1128	0.110
."	1.1726	1.1765	1.1855	1.1904	1.1943	1.1976	1.2005	1.2031	1.2116	1.2181	1.2236	1.2295	1.23
a	253.4	243.4	225.4	217.5	212.0	207.7	204.1	201.1	192.2	186.2		177.0	173
Mach number	0.000	1.000	1.761	2.038	2.228	2.373	2.491	2.591	2.886	3.090	3.248	3.406	3.53
Mole fractions:		i		į i									
Argon	0.50002	0.50002	0.50002	0.50002	0.50002	0.50002	0.50002	0.50002	0.50002	0.50002	0.50002	0.50002	0.500
CBrF2	0.49997	0.49997	0.49997	0.49997	0.49997	0.49997	0.49997	0.49997	0.49997	0.49997	0.49997	0.49997	0.499

TABLE C2.- CC1₂F₂-ARGON ISENTROPIC EQUILIBRIUM EXPANSION

[All values are in SI Units]

	Chamber	Throat	Exit	Exit	Exit	Exit	Exit	Exit	Exit	Exit	Exit	Exit	Exit
Chamber pressure/p	1.0000	1.7723	5.1773	8.3735	11.843	15.564	19.514	23.671	42.066	62.812	85.505	116.22	149.25
p	4.6268	2.6105	0.8937	0.5525	0.3907	0.2973	0.2371	0.1955	0.1100	0.0737	0.0541	0.0398	0.0310
T		590	492	452	425	404	388	37#	336	310	292	274	260
ρ			1.6015 × 10 ⁻³	1.0773 × 10 ⁻³			5.3870 × 10-4		2.8889 × 10-4				1.0506 x 10-4
h	-595.3	-605.0	-620.9	-627.1	-631.3	-634.4	-636.9	-638.9	-644.5	-648.1	-650.6	-653.0	-654.8
8	0.8001	0.8001	0.8001	0.8001	0.8001	0.8001	0.8001	0.8001	0.8001	0.8001	0.8001	0.8001	0.8001
м	72.332	72.332	72.332	72.332	72.332				72.332	72.332		72.332	72.332
$c_n \dots \dots \dots$	0.1672	0.1644	0.1583	0.1551	0.1526	0.1505		0.1472	0.1423	0.1388	0.1359	0.1330	0.1307
Y	1,1967	1,2006	1.2100	1.2153	1.2196	1.2233			1.2392	1.2469	1.2533	1.2602	1,2663
a	298.8	285.4	261.6	251.3	244. 1	238.5			218.6		205.0	199.2	194.6
Mach number	0.000	1.000	1.771	2.055	2.250	2.400	2.523	2.627	2.936	3.152	3.320	3.489	3.629
Hole fractions:													
Argon	0.60003	0.60003	0.60003	0.60003		0.60003				0.60003	0.60003	0.60003	0.60003
CC1 ₂ F ₂	0.39997	0.39997	0.39997	0.39997	0.39997	0.39997	0.39997	0.39997	0.39997	0.39997	0.39997	0.39997	0.39997

REFERENCES

- Jones, Robert A.; and Hunt, James L. (appendix A by James L. Hunt, Kathryn A. Smith, and Robert B. Reynolds, and appendix B by James L. Hunt and Lillian R. Boney): Use of Tetrafluoromethane To Simulate Real-Gas Effects on the Hypersonic Aerodynamics of Blunt Vehicles. NASA TR R-312, 1969.
- 2. Hunt, James L.; Jones, Robert A.; and Smith, Kathryn A.: Use of Hexafluoroethane To Simulate the Inviscid Real-Gas Effects on Blunt Entry Vehicles. NASA TN D-7701, 1974.
- 3. Oman, R. A.; Foreman, K. M.; Leng, J.; and Hopkins, H. B.: Simulation of Hypersonic Scramjet Exhaust. NASA CR-2494, 1975.
- 4. Hopkins, H. B.; Konopka, W.; and Leng, J.: Validation of Scramjet Exhaust Simulation Technique. NASA CR-2688, 1976.
- 5. Hunt, James L.; and Boney, Lillian R.: Thermodynamic and Transport Properties of Gaseous Tetrafluoromethane in Chemical Equilibrium. NASA TN D-7181, 1973.
- 6. Gordon, Sanford; and McBride, Bonnie J.: Computer Program for Calculation of Complex Chemical Equilibrium Compositions, Rocket Performance, Incident and Reflected Shocks, and Chapman-Jouguet Detonations. NASA SP-273. 1971.
- 7. Properties and Applications of the "Freon" Fluorocarbons. Tech. Bull. B-2, E. I. Du Pont De Nemours & Co., c.1969.
- 8. Properties and Applications of the "Freon" Fluorocarbons. Tech. Bull. X-88F, E. I. Du Pont De Nemours & Co., Sept. 3, 1968. (Revised Feb. 3, 1969.)
- 9. Properties and Applications of the "Freon" Fluorocarbons. Tech. Bull. X-65, E. I. Du Pont De Nemours & Co., Aug. 28, 1963.
- 10. Properties and Applications of the "Freon" Fluorocarbons. Tech. Bull. T-116, E. I. Du Pont De Nemours & Co., Jan. 11, 1968.
- 11. Liley, P. E., ed.: Thermophysical Properties of Refrigerants. ASHRAE, 1976.
- 12. Jossi, John A.; Stiel, Leonard I.; and Thodos, George: The Viscosity of Pure Substances in the Dense Gaseous and the Liquid Phases. AIChE J., vol. 8, 1962, pp. 59-63.
- 13. Stiel, Leonard I.; and Thodos, George: The Viscosity of Polar Substances in the Dense Gaseous and Liquid Regions. AIChE J., vol. 10, no. 2, 1964, pp. 275-277.
- 14. Oshen, Steven; Rosenbaum, B. M.; and Thodos, George: Thermal Conductivity of Carbon Tetrafluoride in the Dense Gaseous Region. J. Chem. Phys., vol. 46, no. 8, Apr. 15, 1967, pp. 2939-2944.

TABLE I.- THERMODYNAMIC AND TRANSPORT PROPERTIES

OF CC13F AT CONSTANT ENTROPY

				s	s/R = 9.0000	ı					
T	٧	р	h/RT	a	c _∕ ∕R	γ	Υ _e	Z	μ	k	N_Pr
K	m ³ /kg	atm		m/sec	r		·		N-s∕m ²	W∕m-K	, ,
246.7003 256.7003 266.7003 276.7003 286.7003 396.7003 316.7003 326.7003 336.7003	1.3189 .9749 .7251 .5425 .4084 .3092 .2356 .1805	.1108 .1557 .2171 .3002 .4119 .5608 .7576 1.0154 1.3500	8.1153 8.3141 8.5156 8.7193 8.9248 9.1316 9.3393 9.5471 9.7547	129.2221 131.4714 133.6315 135.6950 137.6527 139.4933 141.2032 142.7664 144.1647	5.5436 5.6593 5.7730 5.8854 5.9972 6.1091 6.2221 6.3370 6.4548 6.5769	1.1366 1.1348 1.1335 1.1325 1.1321 1.1321 1.1327 1.1339 1.1357 1.1363	1.1274 1.1236 1.1197 1.1158 1.1117 1.1074 1.1027 1.0976 1.0919 1.0855	.9920 .9902 .9880 .9854 .9823 .9785 .9741 .9688 .9627	NOT AVAILABLI	E	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
346.7003 356.7003 366.7003 376.7003 386.7003 393.4349	.0342 .0661 .0522 .0415 .0331	2.3297 3.U222 3.8869 4.9546 6.2582 7.2860	10.1657 10.3678 10.5665 10.7609 10.9501 11.0742	146.3761 147.1396 147.6380 147.8415 147.7211 147.4425	6.7044 6.8388 6.9820 7.1359 7.3030 7.4244	1.1418 1.1464 1.1521 1.1593 1.1682 1.1755	1.0783 1.0702 1.0609 1.0503 1.0382 1.0292	.9469 .9371 .9258 .9128 .8981 .8871			0.0000 0.0000 0.0000 0.0000 0.0000
т	٧	р	h ∕RT	· a	/R= 9.5000 Cp/R	γ	Υ _e	Z	μ	k	N _{Pr}
218.1187 228.1187 238.1187 248.1187 258.1187 268.1187 278.1187 278.1187 298.1187 308.1187 318.1187 338.1187 338.1187 348.1187 358.1187 368.1187 368.1187 408.1187 408.1187 408.1187 408.1187 408.1187 408.1187 408.1187 408.1187 408.1187 408.1187 425.5498	7.0460 5.1111 3.7309 2.7399 2.0240 1.5039 1.1238 .8444 .6380 .4846 .3701 .2842 .2193 .1702 .1328 .1041 .0821 .0651 .0518 .0415 .0335 .0286	.0185 .0266 .0380 .0539 .0758 .1059 .1059 .1059 .2762 .3750 .5057 .6771 .9007 1.1898 1.5610 2.0338 2.6308 3.3786 4.3066 5.4477 6.8372	7.5689 7.7595 7.9541 8.1523 8.3540 8.5589 8.7668 8.7772 9.1899 9.4046 9.6210 9.6385 10.6275 10.2753 10.4936 10.7110 10.9270 11.1409 11.3518 11.5592 11.7621	122.5572 125.0927 127.5649 129.9740 132.3193 134.5994 136.8116 136.9523 141.0168 144.8903 146.6624 148.3631 149.9197 151.3367 152.5970 153.6810 154.5677 155.6561 155.6561 155.6561	5.1855 5.3067 5.4236 5.54659 5.6459 5.7520 5.8554 6.0555 6.1531 6.2498 6.34627 6.5402 6.7411 6.8462 6.7511 7.1935 7.3244 7.4284	1.1424 1.1391 1.1362 1.1313 1.1293 1.1277 1.1263 1.1253 1.1246 1.1242 1.1242 1.1246 1.1244 1.1267 1.1286 1.1311 1.1344 1.1385 1.1437 1.1531 1.1538	1.1401 1.1363 1.1327 1.1293 1.1260 1.11299 1.1198 1.1167 1.1136 1.1104 1.1035 1.0954 1.0954 1.0728 1.0652 1.0652 1.0567 1.0470	.9980 .9975 .9962 .9953 .9953 .9943 .9930 .9915 .9897 .9889 .9782 .9789 .9689 .9629 .9560 .9461 .9389 .9283 .9283 .9965	NOT AVAILABI	Ē	0.0000 0.0000

54

TABLE I.- Continued

				s	/R=10.0000)					
τ	V	р	h / RT	a	c _x /R	γ	Υ _e	Z	μ	k	N _{Pr}
211.6230	18.9928	.0067	7.4490	120.9594	p 5.0997	1.1442	1.1433	.9992			0.0000
221.6230	13.7151	.0096	7.6374	123.5592	5.2227	1.1405	1.1393	9990			0.0000
231.6230	9.9671	.0139	7.8300	126.1009	5.3408	1.1371	1.1357	.9988			0.0000
241.6230	7.2873	.0198	8.0267	128.5864	5.4543	1.1341	1.1324	.9985			0.0000
251.6230	5.3594	.0280	8.2272	131.0172	5.5635	1.1314	1.1293	.9981			0.0000
261.6230	3.9641	.0393	8.4313	133.3943	5.6687	1.1290	1.1264	.9977			0.0000
271.6230	2.9485	.0549	8.6388	135.7181	5.7703	1.1268	1.1236	.9972			0.0000
281.6230	2.2051	.0760	8.8495	137.9883	5.8684	1.1249	1.1210	•9966			0.0000
291.6230	1.6579	.1046	9.0632	140.2041	5.9633	1.1231	1.1184	.9958			0.0000
301.6230	1.2530	.1430	9.2797	142.3639	6.0555	1.1217	1.1159	.9949			0.0000
311.6230	.9519	.1943	9.4986	144.4654	6.1451	1.1204	1.1135	•9938	NOT		0.0000
321.6230	•7267	.2624	9.7199	146.5053	6.2324	1.1194	1.1110	9925	NOT		0.0000
331.6230	• 5577	.3520	9.9431	148.4794	6.3179	1.1186	1.1084	.9910	AVAILABLE		0.0000
341.6230	•4299	4695	10.1679	150.3821	6.4019	1.1180	1.1058	.9892			0.0000
351.6230	.3331	.6223	10.3942	152.2071	6.4847	1.1177	1.1030	.9870			0.0000
361.6230	.2593	.8201	10.6215	153.9466	6.5669	1.1177	1.1000	.9844			0.0000
371.6230	.2028	1.0742	10.8495	155.5913	6.6488	1.1180	1.0968	.9814			0.0000
381.6230	.1594	1.3986	11.0777	157.1304	6.7309	1.1186	1.0933	.9778			
391.6230	.1258	1.8100	11.3056	158.5517	6.8139	1.1196	1.0894	.9736			0.0000
401.6230	.0998	2.3282	11.5329	159.8413	6.8983 6.9848	1.1210	1.0850	.9687 .9631			0.0000
411.6230	.0796	2.9763	11.7590 11.9833	160.9840 161.9633	7.0741	1.1253	1.0747	.9566			0.0000
421.6230	.0637	3.7808		162.7622	7.1671	1.1284	1.0685	.9491			0.0000
431.6230	.0513 .0415	4.7719 5.9831	12.2051 12.4238	163.3633	7.2647	1.1323	1.0617	.9405			0.0000
441.6230 451.6230	.0337	7.4509	12.6387	163.7507	7.3680	1.1370	1.0540	.9308			0.0000
459.6879	.0286	8.8481	12.8087	163.8977	7.4563	1.1416	1.0471	.9221			0.0000
437.0017	•0200	0.0401	12.0007	103.07.1	10 1203	202120		• / • • •			******
					/R=10.5000			_			
T	٧	p	h∕RT	a a		γ	Y	Z	μ	k	N _{Pr}
•	•	•		a	c _p /R	γ	Υ _e		μ	k	N _{Pr}
235.9186	18.9928	.0074	7.9154	a 127.2437	c _p /R 5.3863	γ 1.1354	1.1347	•9994	μ	k	0.0000
235.9186 245.9186	18.9928 13.9164	.0074 .0105	7.9154 8.1141	a 127.2437 129.7235	c R 5.3863 5.4970	Y 1.1354 1.1324	1.1347 1.1315	•9994 •9992	μ	k	0.0000
235.9186 245.9186 255.9186	18.9928 13.9164 10.2568	.0074 .0105 .0149	7.9154 8.1141 8.3167	a 127.2437 129.7235 132.1534	c R p 5.3863 5.4970 5.6032	Y 1.1354 1.1324 1.1297	1.1347 1.1315 1.1286	.9994 .9992 .9991	μ	k	0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 265.9186	18.9928 13.9164 10.2568 7.6020	.0074 .0105 .0149	7.9154 8.1141 8.3167 8.5230	a 127.2437 129.7235 132.1534 134.5352	c R p 5.3863 5.4970 5.6032 5.7054	Y 1.1354 1.1324 1.1297 1.1272	1.1347 1.1315 1.1286 1.1259	.9994 .9992 .9991 .9988	μ	k	0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 265.9186 275.9186	18.9928 13.9164 10.2568 7.6020 5.6651	.0074 .0105 .0149 .0209	7.9154 8.1141 8.3167 8.5230 8.7327	a 127.2437 129.7235 132.1534 134.5352 136.8700	cp R 5.3863 5.4970 5.6032 5.7054 5.8036	Y 1.1354 1.1324 1.1297 1.1272 1.1250	1.1347 1.1315 1.1286 1.1259 1.1234	.9994 .9992 .9991 .9988	ц	k	0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 265.9186 275.9186 285.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441	.0074 .0105 .0149 .0209 .0291	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457	127.2437 129.7235 132.1534 134.5352 136.8700 139.1590	c R p 5.3863 5.4970 5.6032 5.7054 5.8036 5.8981	Y 1.1354 1.1324 1.1297 1.1272 1.1250 1.1230	1.1347 1.1315 1.1286 1.1259 1.1234 1.1210	.9994 .9992 .9991 .9988 .9986	μ	k	0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 265.9186 275.9186 285.9186 295.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960	.0074 .0105 .0149 .0209 .0291 .0402	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619	27.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024	c R 5.3863 5.4970 5.6032 5.7054 5.8036 5.8981 5.9892	Y 1.1354 1.1324 1.1297 1.1272 1.1250 1.1230 1.1211	1.1347 1.1315 1.1286 1.1259 1.1234 1.1210 1.1188	.9994 .9992 .9991 .9988 .9986 .9983	μ	k	0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 265.9186 275.9186 285.9186 295.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189	.0074 .0105 .0149 .0209 .0291 .0402 .0552	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619	127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005	c R p 5.3863 5.4970 5.6032 5.7054 5.8036 5.8981 5.9892 6.0770	Y 1.1354 1.1324 1.1297 1.1272 1.1250 1.1230 1.1211 1.1195	1.1347 1.1315 1.1286 1.1259 1.1234 1.1210 1.1188 1.1166	.9994 .9992 .9991 .9988 .9986 .9983 .9979	ц	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 265.9186 275.9186 285.9186 295.9186 305.9186 315.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.8398	.0074 .0105 .0149 .0209 .0291 .0402 .0552	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619 9.3810 9.6028	a 127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 145.7528	C R 5.3863 5.4970 5.6032 5.7054 5.8036 5.8981 5.9892 6.0770 6.1618	1.1354 1.1354 1.1297 1.1272 1.1250 1.1230 1.1211 1.1195 1.1180	1.1347 1.1315 1.1286 1.1259 1.1234 1.1210 1.1188 1.1166 1.1145	.9994 .9992 .9991 .9988 .9986 .9983 .9979 .9975	ц	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 265.9186 275.9186 285.9186 295.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.8398 1.4063	.0074 .0105 .0149 .0209 .0291 .0402 .0552 .0753	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619 9.3810 9.6028 9.8272	127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 145.7528 147.8584	5.3863 5.4970 5.6032 5.7054 5.8036 5.8981 5.9892 6.0770 6.1618 6.2438	Y 1.1354 1.1324 1.1277 1.1272 1.1250 1.1230 1.1211 1.1195 1.1180 1.1167	1.1347 1.1315 1.1286 1.1259 1.1234 1.1210 1.1188 1.1166 1.1145 1.1125	.9994 .9992 .9991 .9988 .9986 .9983 .9979 .9975 .9969	Щ	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 265.9186 275.9186 285.9186 305.9186 315.9186 325.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.8398	.0074 .0105 .0149 .0209 .0291 .0402 .0552 .0753 .1022 .1379	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619 9.3810 9.6028 9.8272	a 127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 145.7528 147.8588 149.9157	C R 5.3863 5.4970 5.6032 5.7054 5.8036 5.8981 6.0770 6.1618 6.2438 6.3232	Y 1.1354 1.1324 1.1297 1.1272 1.1250 1.1230 1.1211 1.1195 1.1180 1.1167 1.1155	1.1347 1.1315 1.1286 1.1259 1.1234 1.1210 1.1188 1.1166 1.1145 1.1125	.9994 .9992 .9991 .9986 .9983 .9979 .9975 .9969	ц	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 265.9186 275.9186 285.9186 305.9186 315.9186 325.9186 335.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.8398 1.4063 1.0798 .8330	.0074 .0105 .0149 .0209 .0291 .0402 .0552 .0753 .1022 .1379 .1850	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619 9.3810 9.6028 9.8272 10.0539 10.2828	a 127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 147.8584 147.8584 149.9157	CpR 5.3863 5.4970 5.6032 5.7054 5.8036 5.8981 5.9892 6.0708 6.1618 6.2438 6.3232 6.4003	Y 1.1354 1.1297 1.1272 1.1250 1.1230 1.1211 1.1195 1.1167 1.1167 1.1155	1.1347 1.1315 1.1286 1.1259 1.1234 1.1210 1.1188 1.1166 1.1145 1.1125 1.1105	.9994 .9992 .9991 .9988 .9986 .9983 .9979 .9975 .9969 .9955 .9946		k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 275.9186 275.9186 295.9186 305.9186 315.9186 325.9186 345.9186 355.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.8398 1.4063 1.0798	.0074 .0105 .0149 .0209 .0291 .0402 .0552 .0753 .1022 .1379	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619 9.3810 9.6028 9.8272	a 127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 145.7528 147.8588 149.9157	C R 5.3863 5.4970 5.6032 5.7054 5.8036 5.8981 6.0770 6.1618 6.2438 6.3232	Y 1.1354 1.1324 1.1297 1.1272 1.1250 1.1230 1.1211 1.1195 1.1167 1.1165 1.1155 1.1145	1.1347 1.1315 1.1286 1.1259 1.1234 1.1210 1.1188 1.1166 1.1145 1.1125 1.11085 1.1085	.9994 .9991 .9988 .9986 .9983 .9979 .9975 .9969 .9963 .9955 .9946	NOT		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 275.9186 285.9186 295.9186 305.9186 315.9186 325.9186 335.9186 345.9186 355.9186 355.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.4063 1.0798 .8330 .6455	.0074 .0105 .0149 .0209 .0291 .0402 .0552 .0753 .1022 .1379 .1850	7.9154 8.1141 8.3167 8.5230 8.7327 9.9619 9.3810 9.6028 9.8272 10.0539 10.2828	a 127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 145.7528 149.9157 151.9226 153.8765	C p R 5.3863 5.4970 5.6032 5.7054 5.8981 5.8981 6.0770 6.1618 6.3232 6.4003 6.4752	Y 1.1354 1.1297 1.1272 1.1250 1.1230 1.1211 1.1195 1.1180 1.1167 1.1155 1.1145 1.1145	1.1347 1.1315 1.1286 1.1259 1.1234 1.1210 1.1188 1.1166 1.1145 1.1125 1.1125 1.105 1.1085 1.1084	.9994 .9992 .9991 .9988 .9986 .9979 .9975 .9969 .9955 .9946	NOT		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 275.9186 285.9186 285.9186 305.9186 315.9186 325.9186 325.9186 345.9186 355.9186 355.9186 355.9186 355.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.8398 1.0798 .8330 .6455 .5025 .3929 .3085	.0074 .0105 .0149 .0291 .0402 .0552 .0753 .1022 .1379 .1850 .2467 .2272 .4316	7.9154 8.1141 8.3167 8.5230 8.7327 9.9619 9.3810 9.6028 9.8272 10.0539 10.2028 10.5137 10.7662 10.9802	a 127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.4025 147.8584 147.8584 149.9157 151.9226 153.8765 155.7736 157.6096 159.3792	Cp R 5.3863 5.4970 5.6032 5.7054 5.8981 5.9892 6.0770 6.1618 6.2438 6.4003 6.4003 6.4003 6.6169 6.6902	Y 1.1354 1.1324 1.1297 1.1272 1.1250 1.1230 1.1211 1.1195 1.1167 1.1165 1.1155 1.1145	1.1347 1.1315 1.1286 1.1259 1.1234 1.1210 1.1188 1.1166 1.1145 1.1125 1.11085 1.1085	.9994 .9991 .9988 .9986 .9983 .9979 .9975 .9969 .9963 .9955 .9946			0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 275.9186 275.9186 295.9186 305.9186 305.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.8398 1.4063 1.0798 .8330 .6455 .5025 .3929 .3085 .2433	.0074 .0105 .0149 .0209 .0291 .0402 .0552 .0753 .1022 .1379 .1850 .2467 .3272 .4316 .5662	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.3610 9.6028 9.8272 10.0539 10.2628 10.5137 10.7462 10.9802 11.2153	127.2437 129.7235 132.1534 134.5352 136.8700 149.1590 141.4024 143.6005 145.7528 147.8588 147.8588 149.9157 151.9226 153.8765 157.6096 159.3792 161.0761	Cp 5.3863 5.4970 5.6032 5.7054 5.8981 5.8981 5.8981 6.0770 6.1618 6.2438 6.4003 6.4752 6.5483 6.6199 6.6902 6.7597	Y 1.1354 1.1297 1.1272 1.1250 1.1230 1.1211 1.1195 1.1180 1.1167 1.1155 1.1145 1.1137 1.1137 1.1131 1.1127	1.1347 1.1286 1.1259 1.1259 1.1210 1.1188 1.1165 1.1145 1.1105 1.1064 1.10643 1.1022 1.0999	.9994 .9991 .9988 .9986 .9983 .9975 .9969 .9969 .9955 .9946 .9935 .9922 .9906 .9888 .9867	NOT		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 255.9186 275.9186 295.9186 305.9186 315.9186 325.9186 335.9186 335.9186 355.9186 365.9186 375.9186 375.9186 375.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.4063 1.0798 .8330 .6455 .5025 .3929 .3085 .2433 .1927	.0074 .0105 .0149 .0209 .0291 .0402 .0753 .1022 .1379 .1850 .2467 .3272 .4316 .5662 .7388 .9590	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619 9.6028 9.8272 10.0539 10.2828 10.5137 10.7462 11.2153 11.4514	a 127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 145.7528 145.7528 149.9157 151.9226 153.8765 155.7736 159.3792 161.0761 162.6930	Cp R 5.3863 5.4970 5.6032 5.7054 5.8981 6.0770 6.1618 6.3232 6.40752 6.5483 6.4752 6.5199 6.6902 6.7597 6.8285	Y 1.1354 1.1324 1.1277 1.1270 1.1250 1.1230 1.1211 1.1195 1.1180 1.1167 1.1155 1.1145 1.1145 1.1147 1.1124 1.1124 1.1124	1.1347 1.1315 1.1286 1.1259 1.1230 1.1188 1.1165 1.1105 1.1105 1.1105 1.1064 1.1043 1.1043 1.0999 1.0974	.9994 .9992 .9991 .9988 .9986 .9983 .9975 .9975 .9963 .9955 .9946 .9935 .9922	NOT		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 275.9186 285.9186 285.9186 305.9186 315.9186 325.9186 325.9186 345.9186 355.9186 355.9186 375.9186 375.9186 405.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.8398 1.4063 1.0798 .8330 .6455 .3929 .3085 .2433 .1927 .1533	.0074 .0105 .0149 .0209 .0291 .0402 .0753 .1022 .1379 .1850 .2467 .2467 .3272 .4316 .5662 .7388 .9590	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.3610 9.6028 9.8272 10.0539 10.2228 10.5137 10.7462 10.9802 11.2153 11.4514 11.6880	127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 145.7528 147.8588 149.9157 151.9226 153.8765 157.6096 159.3792 161.0761 162.6930 164.2215	Cp R 5.3863 5.4970 5.6032 5.7054 5.8981 5.8981 5.0877 6.1618 6.2438 6.4003 6.4003 6.5483 6.6199 6.6902 6.7597 6.8971	Y 1.1354 1.1324 1.1297 1.1272 1.1250 1.1230 1.1211 1.1195 1.1180 1.1167 1.1155 1.1137 1.1131 1.1124 1.1124 1.1124	1.1347 1.1315 1.1286 1.1259 1.1210 1.1188 1.1166 1.1145 1.1125 1.1105 1.1105 1.1064 1.1043 1.1022 1.0999 1.0974 1.09918	.9994 .9992 .9991 .9986 .9983 .9975 .9975 .9969 .9955 .9969 .9935 .9935 .9922 .9906 .9888 .9867 .9842	NOT		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 275.9186 285.9186 295.9186 305.9186 325.9186 335.9186 335.9186 355.9186 355.9186 355.9186 375.9186 385.9186 405.9186 405.9186 405.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.4063 1.0798 .6330 .6455 .5025 .3929 .3085 .2433 .1927 .1533	.0074 .0105 .0149 .0209 .0291 .0402 .0552 .0753 .1022 .1379 .1850 .2467 .3272 .4316 .5662 .7388 .9990 1.2383 1.9904	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619 9.3810 9.6028 10.2628 10.5137 10.7462 11.2153 11.4514 11.6880 11.9249 12.1616	a 127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 145.7528 147.8584 149.9157 151.9226 153.8765 155.7736 155.7736 157.6096 159.3792 161.0761 162.6930 164.2215 165.66516	Cp R 5.3863 5.4970 5.6032 5.7054 5.8981 5.8981 6.0770 6.1618 6.3232 6.4752 6.5483 6.4752 6.5199 6.6902 6.7597 6.8285 6.8971 6.9660	Y 1.1354 1.1324 1.1277 1.1270 1.1250 1.1231 1.1195 1.1180 1.1187 1.1187 1.1137 1.1137 1.1137 1.1131 1.1124 1.1126 1.1126 1.1130	1.1347 1.1315 1.1286 1.1259 1.1210 1.1188 1.1165 1.1145 1.1105 1.1105 1.1064 1.1064 1.1022 1.0999 1.09974 1.0947 1.09886	.9994 .9991 .9988 .9983 .9975 .9975 .9969 .9955 .9946 .9935 .9922 .9906 .9888 .9867 .9842 .9813	NOT		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 275.9186 275.9186 285.9186 305.9186 315.9186 325.9186 325.9186 335.9186 355.9186 355.9186 355.9186 375.9186 375.9186 375.9186 375.9186 375.9186 375.9186 375.9186 375.9186 375.9186 375.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.8398 1.0798 88330 6455 5025 3929 3085 22433 1927 1533 1224	.0074 .0105 .0149 .0209 .0291 .0402 .0552 .0753 .1022 .1379 .1850 .2467 .3272 .4316 .5686 .7588 .9590 .1.2883 1.5004 2.0321 2.5819	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.3810 9.6028 9.8272 10.0539 10.2028 10.5137 10.7462 11.2153 11.4514 11.6880 11.9249 12.1616	a 127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 145.87528 147.8584 149.9157 151.9226 153.8765 155.7736 157.6096 159.3792 161.0761 162.6930 164.2215 165.6516	Cp R 5.3863 5.4970 5.6032 5.7054 5.8981 5.9892 6.0770 6.1618 6.2438 6.4003 6.4752 6.5483 6.6199 6.6902 6.7597 6.8285 6.8971 6.9660	Y 1.1354 1.1324 1.1297 1.1270 1.1250 1.1231 1.1251 1.1180 1.1187 1.1187 1.1187 1.1137 1.1137 1.1124 1.1124 1.1124 1.1124 1.1130 1.1138	1.1347 1.1315 1.1286 1.1259 1.1239 1.1230 1.1188 1.1166 1.1145 1.1105 1.1105 1.1064 1.1043 1.1043 1.1022 1.0974 1.0918 1.0986 1.0885 1.0885	.9994 .9992 .9991 .9988 .9986 .9983 .9975 .9969 .9955 .9945 .9935 .9922 .9988 .9867 .9813 .9778	NOT		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 275.9186 285.9186 285.9186 305.9186 315.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 425.9186 425.9186 425.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.8398 1.4063 1.0798 .8330 .6455 .5025 .3929 .3085 .2433 .1927 .1533 .1224 .0982 .0791	.0074 .0105 .0149 .0209 .0291 .0402 .0753 .1022 .1379 .1850 .2467 .3272 .4316 .5662 .7388 .9590 1.2383 1.5904 2.0321 2.5819	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.3810 9.6028 9.8272 10.0539 10.2028 10.5137 10.7462 10.9802 11.2153 11.4514 11.6880 11.9249 12.1616 12.3977 12.6328	127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 145.7528 147.8588 149.9157 151.9226 153.8765 157.6096 159.3792 161.0761 162.6930 165.6516 166.9739 168.1759	Cp R 5.3863 5.4970 5.6032 5.7054 5.8981 5.9892 6.0770 6.1618 6.24382 6.4003 6.4752 6.47583 6.6199 6.8285 6.87597 6.8285 7.1062	Y 1.1354 1.1297 1.1272 1.1250 1.1230 1.1211 1.1195 1.1180 1.1165 1.1137 1.1124 1.1131 1.1124 1.1124 1.1138 1.1138 1.1138 1.1138	1.1347 1.1286 1.1259 1.1259 1.1210 1.1188 1.1165 1.1165 1.1105 1.10643 1.10643 1.10947 1.0947 1.09918 1.0886 1.0881	.994 .9991 .9988 .9986 .9983 .9975 .9969 .9955 .9946 .9935 .9922 .9906 .9888 .9867 .9813 .9778 .9778	NOT		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 255.9186 275.9186 295.9186 305.9186 315.9186 325.9186 325.9186 335.9186 345.9186 355.9186 365.9186 375.9186 375.9186 375.9186 375.9186 375.9186 375.9186 375.9186 375.9186 475.9186 475.9186 475.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.4063 1.0798 8330 .6455 .5025 .3929 .3085 .2433 .1927 .1533 .1927 .1533 .1224 .0982 .0791	.0074 .0105 .0149 .0209 .0291 .0402 .0753 .1022 .1379 .1850 .2467 .3272 .4316 .5662 .7388 .15904 .20321 .25819 .32632 .1016	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619 9.6028 9.8272 10.0539 10.2828 10.5137 10.7462 11.2153 11.4514 11.6880 11.9249 12.1616 12.3977 12.6328 12.8665	a 127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 145.7528 147.8584 149.9157 151.9226 153.8765 155.7736 155.7736 159.3792 161.0761 162.6930 164.2215 165.6516 166.9739 168.1759 169.2458	5.3863 5.4970 5.6032 5.7054 5.8981 5.8981 6.0770 6.1618 6.3232 6.4052 6.4752 6.5483 6.4752 6.5483 6.4752 6.5483 6.4752 6.5483 6.4752 6.5483 6.702 6.70355 7.1062	Y 1.1354 1.1324 1.1277 1.1270 1.1250 1.1231 1.1195 1.1180 1.1167 1.1155 1.1145 1.1145 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1128 1.1138 1.1138	1.1347 1.1315 1.1286 1.1259 1.1210 1.1188 1.1165 1.1145 1.1105 1.1064 1.1043 1.10999 1.09974 1.0947 1.0886 1.0851 1.0812	.994 .9992 .9991 .9986 .9986 .9983 .9975 .9969 .9955 .9943 .9955 .9943 .9955 .9945 .9888 .9867 .9888 .9867 .9869 .9778 .9778	NOT		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 275.9186 275.9186 285.9186 305.9186 315.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186 325.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.8398 1.0798 .8330 .6455 .5025 .3929 .3085 .2433 .1927 .1533 .1224 .0791 .0640 .0520	.0074 .0105 .0149 .0291 .0402 .0552 .0753 .1022 .1379 .1850 .2467 .3272 .4316 .5662 .7388 .9590 1.2383 1.5904 2.0321 2.5619 3.2632 4.1016	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619 9.6028 9.8272 10.0539 10.72828 10.5137 10.7462 10.9802 11.2153 11.4514 11.6880 11.9249 12.1616 12.3977 12.6328 12.8665	127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 145.8584 147.8588 147.8588 157.6098 159.3792 161.0761 162.6930 162.6930 165.6513 165.6513 165.6513 165.6513 166.930 168.1759 168.1759	Cp R 5.3863 5.4970 5.6032 5.7054 5.8981 5.9892 6.770 6.1618 6.2438 6.4003 6.4003 6.4003 6.6199 6.6902 6.7597 6.8285 7.1062 7.1786	Y 1.1354 1.1324 1.1297 1.1250 1.1250 1.1231 1.1250 1.1211 1.1180 1.1155 1.1137 1.1127 1.1124 1.1124 1.1124 1.1124 1.1124 1.1130 1.1138 1.1148 1.1148 1.1162	1.1347 1.1315 1.1286 1.1259 1.1210 1.1188 1.1166 1.1145 1.1105 1.1105 1.10643 1.1022 1.0947 1.0947 1.0948 1.0886 1.0812 1.0768	.9994 .9992 .9991 .9988 .9986 .9983 .9975 .9969 .9955 .9946 .9935 .9922 .9906 .9867 .9842 .9813 .9778 .9789 .9693	NOT		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
235.9186 245.9186 255.9186 275.9186 275.9186 295.9186 305.9186 315.9186 325.9186 325.9186 335.9186 345.9186 345.9186 345.9186 345.9186 345.9186 345.9186 455.9186 455.9186 455.9186 455.9186 455.9186 455.9186 455.9186 455.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.4063 1.0798 .6330 .6455 .5025 .3929 .3085 .2433 .1927 .1533 .1224 .0982 .0791 .0640 .0520	.0074 .0105 .0149 .0209 .0291 .0402 .0552 .0753 .1022 .1379 .1850 .2467 .3272 .4316 .5662 .7388 .9590 1.2383 1.5904 2.0321 2.5819 3.2632 4.1016 5.1266	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619 9.3810 9.6028 10.0539 10.2828 10.5137 10.7462 11.2153 11.4514 11.6880 11.9249 12.1616 12.3977 12.6328 12.8665 13.0981	a 127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 145.7528 147.8584 149.9157 151.9226 153.8765 155.7736 155.7736 159.3792 161.0761 162.6930 164.2215 165.66516 165.66516 166.9739 168.1759 170.1711 170.9400	5.863 5.4970 5.6032 5.7054 5.8981 6.0770 6.1618 6.2438 6.3232 6.4752 6.5483 6.4752 6.5902 6.7597 6.8971 6.8960 7.0355 7.1062 7.1786 7.2533	Y 1.1354 1.1324 1.1277 1.1250 1.1250 1.1231 1.1195 1.1180 1.1187 1.1187 1.1137 1.1137 1.1137 1.1131 1.1126 1.1138 1.1138 1.1148 1.1148 1.1148 1.1148 1.1148 1.1148	1.1347 1.1315 1.1286 1.1259 1.1230 1.1210 1.1188 1.1165 1.1145 1.1105 1.1064 1.1064 1.1022 1.0999 1.09974 1.0851 1.0851 1.0851 1.0851 1.0851 1.0868 1.0851 1.0868	.9994 .9991 .9988 .9988 .9983 .9975 .9969 .9969 .9969 .9988 .9935 .9922 .9906 .9888 .9867 .9842 .9813 .9778 .9739 .9693 .9693 .9693 .9694 .9581	NOT		0.0000 0.0000
235.9186 245.9186 255.9186 255.9186 275.9186 285.9186 305.9186 315.9186 325.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.4063 1.0798 8.8330 6.455 5.5025 3929 3085 22433 1.927 -1533 -1224 0.0982 0.0982 0.0424 0.0520	.0074 .0105 .0149 .0209 .0209 .0402 .0552 .0753 .1022 .1379 .1850 .2467 .3272 .4316 .5662 .7388 .9590 1.2383 1.5904 2.0321 2.5819 3.2632 4.1016 5.1266 6.3712 7.8716	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619 9.3810 9.6028 9.8272 10.0539 10.5137 10.7462 11.2153 11.4514 11.6880 11.9249 12.1616 12.3977 12.6328 12.8665 13.0981 13.3271	a 127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 145.7528 145.7528 145.9226 155.7736 155.7736 159.3792 161.0761 162.6930 164.2215 165.6516 166.9739 168.1759 169.2458 170.9400 171.5415	5.8863 5.4970 5.6032 5.7054 5.8981 5.8981 5.9770 6.1618 6.3232 6.40752 6.5483 6.6199 6.8752 6.8971 6.902 6.7597 6.8971 6.90355 7.1062 7.2533 7.3310 7.4124	Y 1.1354 1.1324 1.1277 1.1270 1.1250 1.1231 1.1251 1.1180 1.1181 1.1155 1.1145 1.1147 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1124 1.1126	1.1347 1.1315 1.1286 1.1259 1.1234 1.1188 1.1166 1.1145 1.1125 1.1125 1.1085 1.1064 1.1043 1.1022 1.0974 1.0999 1.0974 1.0986 1.0885 1.0885 1.0812 1.0719 1.0665	.9994 .9992 .9991 .9986 .9986 .9987 .9975 .9969 .9955 .9955 .9922 .99888 .9813 .9739 .9813 .9739 .96941 .9581	NOT		0.0000 0.0000
235.9186 245.9186 255.9186 275.9186 275.9186 295.9186 305.9186 315.9186 325.9186 325.9186 335.9186 345.9186 345.9186 345.9186 345.9186 345.9186 345.9186 455.9186 455.9186 455.9186 455.9186 455.9186 455.9186 455.9186 455.9186	18.9928 13.9164 10.2568 7.6020 5.6651 4.2441 3.1960 2.4189 1.4063 1.0798 .6330 .6455 .5025 .3929 .3085 .2433 .1927 .1533 .1224 .0982 .0791 .0640 .0520	.0074 .0105 .0149 .0209 .0291 .0402 .0552 .0753 .1022 .1379 .1850 .2467 .3272 .4316 .5662 .7388 .9590 1.2383 1.5904 2.0321 2.5819 3.2632 4.1016 5.1266	7.9154 8.1141 8.3167 8.5230 8.7327 8.9457 9.1619 9.3810 9.6028 10.0539 10.2828 10.5137 10.7462 11.2153 11.4514 11.6880 11.9249 12.1616 12.3977 12.6328 12.8665 13.0981	a 127.2437 129.7235 132.1534 134.5352 136.8700 139.1590 141.4024 143.6005 145.7528 147.8584 149.9157 151.9226 153.8765 155.7736 155.7736 159.3792 161.0761 162.6930 164.2215 165.66516 165.66516 166.9739 168.1759 170.1711 170.9400	5.863 5.4970 5.6032 5.7054 5.8981 6.0770 6.1618 6.2438 6.3232 6.4752 6.5483 6.4752 6.5902 6.7597 6.8971 6.8960 7.0355 7.1062 7.1786 7.2533	Y 1.1354 1.1324 1.1277 1.1250 1.1250 1.1231 1.1195 1.1180 1.1187 1.1187 1.1137 1.1137 1.1137 1.1131 1.1126 1.1138 1.1138 1.1148 1.1148 1.1148 1.1148 1.1148 1.1148	1.1347 1.1315 1.1286 1.1259 1.1230 1.1210 1.1188 1.1165 1.1145 1.1105 1.1064 1.1064 1.1022 1.0999 1.09974 1.0851 1.0851 1.0851 1.0851 1.0851 1.0868 1.0851 1.0868	.9994 .9991 .9988 .9988 .9983 .9975 .9969 .9969 .9969 .9988 .9935 .9922 .9906 .9888 .9867 .9842 .9813 .9778 .9739 .9693 .9693 .9693 .9694 .9581	NOT		0.0000 0.0000

TABLE I.- Continued

				s	/R=11.000	0					
T	V	p	h ∕RT	a	c _p ∕R	γ	γ _e	Z	μ	k	N _{Pr}
261.3838	18.9863	.0082	8.4302	133.5174	5.6565	1.1280	1.1274	.9995			0.0000
271.3838	14.1106	.0115	8.6387	135.8876	5.7557	1.1256	1.1249	•9994			0.0000
281.3838	10.5437 7.9192	.0159 .0220	8.8507 9.0660	138.2149 140.5006	5.8510 5.9425	1.1234 1.1213	1.1226 1.1204	.9993 .9991			0.0000
291.3838 301.3838	5.9781	.0301	9.2844	142.7459	6.0304	1.1195	1.1183	9989			0.0000
311.3838	4.5349	.0410	9.5058	144.9515	6.1149	1.1178	1.1163	9987			0.0000
321.3838	3.4567	.0554	9.7300	147.1181	6.1962	1.1163	1.1145	.9984			0.0000
331.3838	2.6476	.0746	9.9569	149.2459	6.2745	1.1148	1.1127	.9981			0.0000
341.3838	2.0367	.0999	10.1863	151.3346	6.3498	1.1136	1.1110	.9977			0.0000
351.3838	1.5738	.1330	10.4181	153.3840	6.4225	1.1124	1.1093	.9972			0.0000
361.3838	1.2215	.1761	10.6520	155.3929	6.4926	1.1114	1.1077	.9967			0.0000
371.3838	.9521 .7453	.2321	10.8879 11.1257	157.3602 159.2840	6.5604 6.6260	1.1105	1.1061	.9960 .9952			0.0000
381.3838 391.3838	.5858	.3042 .3968	11.3651	161.1620	6.6897	1.1091	1.1028	9943	NOT		0.0000
401.3838	.4623	.5151	11.6059	162.9913	6.7517	1.1086	1.1011	.9932	AVAILABLE		0.0000
411.3838	.3063	.6654	11.8480	164.7684	6.8122	1.1083	1.0993	.9919	MANIENDE		0.0000
421.3838	.2914	.8555	12.0911	166.4891	6.8714	1.1081	1.0974	.9904			0.0000
431.3838	.2327	1.0949	12.3349	168.1483	6.9296	1.1080	1.0954	9887			0.0000
441.3838	.1866	1.3942	12.5792	169.7413	6.9870	1.1082	1.0932	.9866			0.0000
451.3836	.1501	1.7676	12.8238 13.0682	171.2603	7.0441 7.1009	1.1085	1.0908	.9842			0.0000
461.3838 471.3838	.1213 .0983	2.2303 2.8008	13.3122	172.6992 174.0500	7.1580	1.1091 1.1099	1.0882 1.0854	.9815 .9783			0.0000
481.3838	.0801	3.5007	13.5554	175.3045	7.2157	1.1109	1.0823	.9747			0.0000
491.3838	.0654	4.3544	13.7974	176.4541	7.2743	1.1123	1.0788	.9705			0.0000
501.3838	.0537	5.3899	14.0377	177.4904	7.3344	1.1141	1.0750	.9657			0.0000
511.3838	.0442	6.6387	14.2759	178.4056	7.3964	1.1162	1.0708	.9604			0.0000
521.3838	.0365	8.1354	14.5115	179,1931	7.4609	1.1189	1.0663	.9543			0.0000
531.3838	.0303	9.9181	14.7439	179.8487	7.5285	1.1220	1.0614	.9476			0.0000
534.5411	.0286	10.5474	14.8166	180.0276	7.5506	1.1232	1.0598	.9453			0.0000
				s	/R=11.500	D					
Т	V	p	h ∕RT	s a	/R=11.5000 C _p /R	γ	Υe	Z	μ	k	N _{Pr}
T 288.0699	V 18.9997	p .0091	h /RT				γ _e	Z .9996	μ	k	
288.0699 298.0699	18.9997 14.3088	.0091 .0124	8.9954 9.2130	a 139.7946 142.0646	c R 5.9101 5.9986	γ 1.1217 1.1198	1.1213	.9996 .9995	μ	k	0.0000
288.0699 298.0699 308.0699	18.9997 14.3088 10.8353	.0091 .0124 .0170	8.9954 9.2130 9.4338	39.7946 139.7946 142.0646 144.2973	c R p 5.9101 5.9986 6.0835	γ 1.1217 1.1198 1.1180	1.1213 1.1193 1.1174	.9996 .9995 .9994	μ	k	0.0000 0.0000 0.0000
288.0699 298.0699 308.0699 318.0699	18.9997 14.3088 10.8353 8.2443	.0091 .0124 .0170	8.9954 9.2130 9.4338 9.6575	39.7946 142.0646 144.2973 146.4939	cpR 5.9101 5.9986 6.0835 6.1650	Y 1.1217 1.1198 1.1180 1.1163	1.1213 1.1193 1.1174 1.1156	.9996 .9995 .9994 .9993	μ	k	0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 308.0699 318.0699 328.0699	18.9397 14.3088 10.8353 8.2443 6.3033	.0091 .0124 .0170 .0230	8.9954 9.2130 9.4338 9.6575 9.8841	139.7946 142.0646 144.2973 146.4939 148.6555	cpR 5.9101 5.9966 6.0835 6.1650 6.2433	Y 1.1217 1.1198 1.1180 1.1163 1.1148	1.1213 1.1193 1.1174 1.1156 1.1139	.9996 .9995 .9994 .9993	μ	k	0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 308.0699 318.0699 328.0699	18.9397 14.3088 10.8353 8.2443 6.3033 4.8402	.0091 .0124 .0170 .0230 .0311	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826	C R 5.9101 5.9986 6.0835 6.1650 6.2433 6.3184	Y 1.1217 1.1198 1.1180 1.1163 1.1148 1.1134	1.1213 1.1193 1.1174 1.1156 1.1139 1.1123	.9996 .9995 .9994 .9993 .9992	μ	k	0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 308.0699 318.0699 328.0699 338.0699	18.9997 14.3088 10.8353 8.2443 6.3033 4.8402 3.7335	.0091 .0124 .0170 .0230 .0311 .0417	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133	a 139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759	CpR 5.9101 5.9986 6.0835 6.1650 6.2433 6.3184 6.3905	Y 1.1217 1.1198 1.1180 1.1163 1.1148 1.1134 1.1121	1.1213 1.1193 1.1174 1.1156 1.1139 1.1123	.9996 .9995 .9994 .9993 .9992 .9990	μ	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 308.0699 318.0699 328.0699	18.9397 14.3088 10.8353 8.2443 6.3033 4.8402	.0091 .0124 .0170 .0230 .0311	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826	C R 5.9101 5.9986 6.0835 6.1650 6.2433 6.3184	Y 1.1217 1.1198 1.1180 1.1163 1.1148 1.1134	1.1213 1.1193 1.1174 1.1156 1.1139 1.1123	.9996 .9995 .9994 .9993 .9992	μ	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 308.0699 318.0699 328.0699 338.0699 348.0699 358.0699 368.0699 378.0699	18.9397 14.3088 10.8353 8.2443 6.3033 4.8402 3.7335 2.8923 2.2502 1.7580	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975	8,9954 9,2130 9,4338 9,6575 9,8841 10,1133 10,3450 10,5792 10,8156 11,0541	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547	Cp R 5.9101 5.9986 6.0835 6.1650 6.2433 6.3184 6.3905 6.45264 6.5904	Y 1.1217 1.1198 1.1180 1.1163 1.1148 1.1134 1.1121 1.1109 1.1098 1.1088	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1107 1.1093 1.1079 1.1065	.9996 .9995 .9994 .9993 .9992 .9990 .9988 .9986 .9986	μ	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 308.0699 318.0699 328.0699 348.0699 358.0699 358.0699 368.0699 378.0699	18.9397 14.3088 10.8353 8.2443 6.3033 4.8402 3.7335 2.8923 2.2502 1.7580 1.3790	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282	8.9954 9'.4338 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.8156 11.0541	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132	Cp R 5.9101 5.9986 6.0835 6.1650 6.2433 6.3184 6.3905 6.4598 6.5264 6.5904 6.6521	Y 1.1217 1.1198 1.1180 1.1163 1.1148 1.1121 1.1109 1.1098 1.1088 1.1079	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1093 1.1079 1.1065 1.1052	.9996 .9995 .9994 .9993 .9990 .9988 .9986 .9983 .9979	μ	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 308.0699 318.0699 328.0699 348.0699 358.0699 358.0699 378.0699 388.0699 388.0699	18.9397 14.3088 10.8353 8.2443 6.3033 4.8402 3.7335 2.8923 2.2502 1.7580 1.3790 1.0860	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183	8.9954 9'.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.8156 11.0541 11.2946 11.5370	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132	Cp R 5.9101 5.9986 6.0835 6.1650 6.2433 6.3184 6.3905 6.4598 6.5904 6.5904 6.6521 6.7115	Y 1.1217 1.1198 1.1180 1.1163 1.1148 1.1134 1.1121 1.1109 1.1098 1.1088 1.1079 1.1079	1.1213 1.1193 1.1174 1.1156 1.1139 1.1123 1.1107 1.1093 1.1079 1.1065 1.1052 1.1039	.9996 .9995 .9994 .9992 .9990 .9988 .9986 .9983 .9979 .9975	μ	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.6699 318.0699 328.0699 328.0699 348.0699 358.0699 358.0699 368.0699 368.0699 368.0699 368.0699	18.9397 14.3088 10.8353 8.2443 6.3033 4.8402 2.8923 2.2502 1.7580 1.3790 1.0860 8586	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829	8.9954 9'.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.8156 11.0541 11.2946 11.5370 11.7810	139.7946 142.0646 144.2973 146.4933 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132 162.8367	Cp R 5.9101 5.9986 6.0835 6.1650 6.2438 6.3184 6.3905 6.4598 6.55204 6.6521 6.7115 6.7688	Y 1.1217 1.1198 1.1180 1.1163 1.1148 1.1121 1.1109 1.1098 1.1071 1.1071 1.1071	1.1213 1.1193 1.1174 1.1156 1.1139 1.1123 1.1107 1.1093 1.1079 1.1065 1.1052 1.1039 1.1039 1.1025	.9996 .9995 .9994 .9993 .9992 .9988 .9986 .9983 .9989 .9983 .9979 .9975 .9975	·	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 318.0699 318.0699 328.0699 348.0699 358.0699 368.0699 378.0699 388.0699 488.0699 488.0699	18.9997 14.3088 10.8353 8.2443 6.3033 4.8402 3.7335 2.8923 2.2502 1.7580 1.3790 1.0860 .6814	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.8156 11.0541 11.2946 11.7810 12.0266	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132 162.8367 164.7241 166.5741	Cp R 5.9101 5.9986 6.0835 6.1650 6.2433 6.3184 6.3905 6.5264 6.55904 6.5591 6.7115 6.7688 6.8243	Y 1.1217 1.1198 1.1180 1.1163 1.11148 1.1134 1.1121 1.1109 1.1098 1.1079 1.1071 1.1064 1.1058	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1093 1.1107 1.1065 1.1052 1.1039 1.1025 1.1025	.9996 .9995 .9994 .9993 .9992 .9988 .9986 .9983 .9979 .9975 .9970	NOT	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 318.0699 318.0699 328.0699 348.0699 358.0699 368.0699 368.0699 408.0699 408.0699 418.0699 418.0699 418.0699	18.9397 14.3088 10.8353 8.2443 6.3033 4.8402 3.7335 2.8502 1.7580 1.3790 1.0660 .8586 .6814	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829 .3649	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.6156 11.0541 11.2946 11.5370 11.7810 12.0266 12.2736	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132 162.8367 164.7241 166.5741 168.3846	Cp R 5.9101 5.9986 6.0835 6.1650 6.2433 6.3184 6.3905 6.4598 6.5904 6.5904 6.6715 6.7688 6.8243 6.8779	1.1217 1.1198 1.1180 1.1163 1.1148 1.1134 1.1121 1.11098 1.1098 1.1079 1.1071 1.1064 1.1055	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1009 1.1065 1.1065 1.1052 1.1039 1.1025 1.1025 1.1039	.9996 .9994 .9993 .9990 .9988 .9986 .9983 .9979 .9970 .9965 .9958	·	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 318.0699 318.0699 328.0699 348.0699 358.0699 368.0699 378.0699 388.0699 488.0699 488.0699	18.9997 14.3088 10.8353 8.2443 6.3033 4.8402 3.7335 2.8923 2.2502 1.7580 1.3790 1.0860 .6814	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.8156 11.0541 11.2946 11.5370 11.7810 12.0266 12.2736 12.5218 12.7710	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132 162.8367 164.7241 166.5741	Cp R 5.9101 5.9986 6.0835 6.1650 6.2433 6.3184 6.3905 6.5264 6.55904 6.5591 6.7115 6.7688 6.8243	Y 1.1217 1.1198 1.1180 1.1163 1.11148 1.1134 1.1121 1.1109 1.1098 1.1079 1.1071 1.1064 1.1058	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1093 1.1107 1.1065 1.1052 1.1039 1.1025 1.1025	.9996 .9995 .9994 .9993 .9992 .9988 .9986 .9983 .9979 .9975 .9970	NOT	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 318.0699 318.0699 328.0699 348.0699 358.0699 368.0699 368.0699 408.0699 418.0699 418.0699 428.0699 438.0699 448.0699 448.0699 448.0699	18.9397 14.3088 10.8353 8.2443 6.3033 4.8402 3.7335 2.8923 2.2502 1.3790 1.0860 .8586 .6814 .5429 .4341 .3483 .2805	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829 .3649 .4687 .5992 .7630	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.6156 11.0541 11.2946 11.5370 11.7810 12.0266 12.2736 12.2736 12.5218 12.7710 13.0211	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132 162.8367 164.7241 166.5741 168.3846 170.1536 171.8780 173.5550	Cp R 5.9101 5.9986 6.0835 6.1650 6.2433 6.3184 6.3905 6.4598 6.5904 6.5904 6.6715 6.7688 6.8243 6.8779 6.9300 6.9808 7.0303	1.1217 1.1198 1.1180 1.1163 1.1148 1.1121 1.1109 1.1098 1.1079 1.1071 1.1053 1.1053 1.1053 1.1053 1.1047 1.1047	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.11079 1.1065 1.1052 1.1039 1.1025 1.1012 1.0998 1.0998 1.0970	.9996 .9995 .9994 .9993 .9990 .9988 .9988 .9988 .9989 .9975 .9975 .9958 .9958	NOT	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 318.0699 328.0699 338.0699 358.0699 358.0699 368.0699 368.0699 368.0699 408.0699 418.0699 428.0699 428.0699 448.0699 448.0699 448.0699	18.9997 14.3088 10.8353 8.2443 6.8402 3.7335 2.8923 2.2502 1.3790 1.0860 .8586 .6814 .4341 .3483 .2805 .2267	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829 .3649 .4687 .5992 .7630	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.8156 11.0541 11.2946 11.5370 11.7810 12.0266 12.2736 12.2736 12.2736 12.2731 13.2711	139.7946 142.0646 144.2973 146.4933 146.4939 159.8759 154.9357 156.9620 158.9547 160.9132 162.8359 164.7241 166.5741 168.3846 170.1536 171.8780 173.5550 175.1807	Cp R 5.9101 5.9986 6.0835 6.1650 6.1650 6.3184 6.3905 6.5264 6.5904 6.521 6.7115 6.7688 6.8243 6.8779 6.9300 6.9808 7.0303 7.0788	Y 1.1217 1.1198 1.1180 1.1163 1.1148 1.1134 1.1129 1.1098 1.1079 1.1079 1.1071 1.1064 1.1053 1.1053 1.1050 1.1045	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1093 1.1107 1.1065 1.1052 1.1039 1.1025 1.1012 1.0998 1.0970 1.0954 1.0954	.9996 .9995 .9994 .9993 .9990 .9988 .9986 .9983 .9975 .9975 .9975 .9958 .9958 .9958 .9958 .9958	NOT	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 318.0699 318.0699 328.0699 348.0699 358.0699 368.0699 368.0699 488.0699 488.0699 418.0699 428.0699 428.0699 438.0699 448.0699 448.0699 448.0699 448.0699	18.9997 14.3088 10.8353 8.2443 6.3033 4.8402 3.7335 2.8923 2.2502 1.7580 1.3790 1.0860 .6814 .5429 .4341 .3483 .2805 .2267 .1839	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829 .4687 .7630 .9674 1.2213	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.8156 11.0541 11.2946 11.5370 11.7810 12.0266 12.2736 12.5218 12.7710 13.0211 13.5229	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132 162.8367 164.7241 168.3846 170.1536 171.8780 173.5550 175.1807 176.7511	Cp R 5.9101 5.9866 6.0835 6.1650 6.2433 6.3184 6.3905 6.5264 6.5921 6.7115 6.7688 6.8779 6.9808 7.0303 7.0788 7.1266	Y 1.1217 1.1198 1.1180 1.1163 1.1163 1.1194 1.1109 1.1098 1.1079 1.1071 1.1056 1.1053 1.1053 1.1053 1.1045 1.1045 1.1045 1.1045	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1093 1.1079 1.1055 1.1052 1.1039 1.1025 1.1039 1.1025 1.0998 1.0998 1.0997 1.0994	.9996 .9994 .9993 .9990 .9988 .9988 .9983 .9979 .9975 .9975 .9958 .9958 .9958 .9958 .9958 .9958	NOT	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 318.0699 318.0699 328.0699 348.0699 358.0699 368.0699 368.0699 488.0699 418.0699 418.0699 428.0699 448.0699 448.0699 458.0699 458.0699 468.0699 468.0699	18.9997 14.3088 10.8353 8.2443 6.3033 4.8402 2.7335 2.8923 2.2502 1.3790 1.0860 8.586 6.6814 5.429 4.341 3.483 2.8905 2.267 1.839 1.839	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829 .3649 .4687 .5992 .7630 .9674 1.2213 1.5354	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133 10.3450 11.0541 11.2946 11.5370 11.7810 12.0266 12.2736 12.5218 12.7710 13.0211 13.2718 13.5229 13.7742	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759 154.9357 156.9620 158.99547 160.9132 162.8367 164.7241 166.5741 168.3846 170.1536 171.8780 173.5550 175.1807 176.7511 178.2616	Cp R 5.9101 5.9986 6.0835 6.1650 6.1650 6.3184 6.3905 6.5264 6.6521 6.7688 6.8243 6.8779 6.9300 6.9808 7.0303 7.0788 7.1266 7.1738	Y 1.1217 1.1198 1.1163 1.1148 1.1134 1.1121 1.1109 1.1088 1.1071 1.1053 1.1053 1.1053 1.1055 1.1055 1.1045 1.1045 1.1045 1.1045 1.1046	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1093 1.1079 1.1065 1.1039 1.1025 1.1039 1.1025 1.1039 1.0970 1.0970 1.0970	.9996 .9995 .9994 .9992 .9990 .9988 .9988 .9986 .9983 .9975 .9975 .9975 .9958 .9958 .9958 .9958 .9958 .9958 .9958	NOT	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 318.0699 328.0699 338.0699 358.0699 358.0699 368.0699 368.0699 408.0699 418.0699 428.0699 448.0699 448.0699 458.0699 458.0699 468.0699 468.0699 468.0699 468.0699	18.9997 14.3088 10.8353 8.2443 6.3033 4.8402 3.7335 2.8923 2.2502 1.7580 1.3790 1.0860 .8586 .6814 .5429 .4341 .3483 .2805 .2267 .1839 .1497 .1222	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829 .3649 .4687 .5992 .7630 .9674 1.2213 1.5354 1.9223 2.3996	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.8156 11.0541 11.2946 11.5370 11.7810 12.0266 12.2736 12.2736 12.2736 12.27710 13.0211 13.2718 13.5229 13.7742	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132 162.8365 171.8780 173.5550 173.5550 176.7511 178.2616	Cp R 5,9101 5,9966 6,0835 6,1650 6,2433 6,3184 6,3905 6,5264 6,5521 6,7115 6,7688 6,6521 6,711688 7,0303 7,0788 7,1266 7,11738 7,1268	Y 1.1217 1.1198 1.1180 1.1163 1.1148 1.1134 1.1129 1.1098 1.1098 1.1079 1.1079 1.1053 1.1053 1.1050 1.1054 1.1055 1.1045 1.1045 1.1048 1.1048 1.1048	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1093 1.1107 1.1065 1.1052 1.1039 1.1025 1.1012 1.0998 1.0970 1.0954 1.0998 1.0920 1.09901 1.09901	.9996 .9994 .9993 .9990 .9988 .9988 .9983 .9975 .9975 .9975 .9958 .9950 .9951 .9931 .9931 .9931 .9931 .99887 .99887	NOT	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 318.0699 318.0699 328.0699 348.0699 358.0699 368.0699 468.0699 418.0699 428.0699 438.0699 438.0699 448.0699 448.0699 448.0699 448.0699 448.0699 458.0699 468.0699 478.0699 498.0699	18.9397 14.3088 10.8353 8.2443 6.3033 4.8402 3.7335 2.8923 2.2502 1.3790 1.07580 1.8586 6.814 2.4341 2.4341 2.4341 3.483 2.267 1.497 1.1222 1.1002	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829 .3649 .4687 .7930 .9674 1.2213 1.5354 1.9223 2.3966	8.9954 9.2130 9.4338 9.6575 9.8841 10.3133 10.3450 10.5792 10.8156 11.0541 11.2946 11.5370 11.7810 12.0266 12.2736 12.5218 12.7710 13.0211 13.2718 13.5229 13.7742 14.0255 14.2764	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132 162.8367 164.7241 166.5741 168.3846 171.8780 173.5550 175.1807 176.7511 178.2616 179.7069 181.0818	Cp R 5.9101 5.9986 6.0835 6.1650 6.2433 6.3184 6.3905 6.4598 6.5264 6.5904 6.6591 6.7115 6.7688 6.8243 6.8779 6.9808 7.0303 7.0788 7.1266 7.1738 7.2208 7.2267	1.1217 1.1198 1.1180 1.1163 1.1148 1.1134 1.1121 1.1109 1.1098 1.1079 1.1071 1.1053 1.1053 1.1053 1.1045 1.1045 1.1045 1.1045 1.1046 1.1048 1.1048 1.1048 1.1048 1.1048	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1093 1.1079 1.1065 1.1052 1.1012 1.0998 1.0984 1.0998 1.0954 1.0954 1.0954 1.0954 1.0950 1.0901 1.0881 1.0881	.9994 .9994 .9993 .9990 .9988 .9988 .9983 .9975 .9975 .9975 .9958 .9958 .9958 .9958 .9958 .9988 .9988 .9988 .9988 .9988	NOT	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 318.0699 328.0699 338.0699 358.0699 358.0699 368.0699 368.0699 408.0699 418.0699 428.0699 448.0699 448.0699 458.0699 458.0699 468.0699 468.0699 468.0699 468.0699	18.9997 14.3088 10.8353 8.2443 6.3033 4.8402 3.7335 2.8923 2.2502 1.7580 1.3790 1.0860 .8586 .6814 .5429 .4341 .3483 .2805 .2267 .1839 .1497 .1222	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829 .3649 .4687 .5992 .7630 .9674 1.2213 1.5354 1.9223 2.3996	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.8156 11.0541 11.2946 11.7310 12.0266 12.2736 12.7710 13.0211 13.2718 13.5229 13.7742 14.0255 14.2764	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132 162.8365 171.8780 173.5550 173.5550 176.7511 178.2616	Cp R 5,9101 5,9966 6,0835 6,1650 6,2433 6,3184 6,3905 6,5264 6,5521 6,7115 6,7688 6,6521 6,711688 7,0303 7,0788 7,1266 7,11738 7,1268	Y 1.1217 1.1198 1.1180 1.1163 1.1148 1.1134 1.1129 1.1098 1.1098 1.1079 1.1079 1.1053 1.1053 1.1050 1.1054 1.1055 1.1045 1.1045 1.1048 1.1048 1.1048	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1093 1.1107 1.1065 1.1052 1.1039 1.1025 1.1012 1.0998 1.0970 1.0954 1.0998 1.0920 1.09901 1.09901	.9996 .9994 .9993 .9990 .9988 .9988 .9983 .9975 .9975 .9975 .9958 .9950 .9951 .9931 .9931 .9931 .9931 .99887 .99887	NOT	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 308.0699 318.0699 318.0699 328.0699 358.0699 358.0699 368.0699 468.0699 418.0699 428.0699 428.0699 438.0699 448.0699 458.0699 468.0699 468.0699 478.0699 478.0699 508.0699 508.0699 508.0699 508.0699	18.9397 14.3088 10.8353 8.2443 6.3033 4.8402 2.8923 2.2502 1.3790 1.0860 .8586 .6814 .5429 .4341 .3483 .2805 .2267 .1839 .1497 .1222 .1002 .0824 .0660	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829 .3649 .4687 .5992 .7630 .9674 1.2213 1.5354 1.9223 2.3966 2.9757 3.6792 4.5300 5.55539	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.6156 11.55370 11.7810 12.0266 12.2736 12.5218 12.7710 13.0211 13.2718 13.5229 13.7742 14.0255 14.2764 14.5267 14.7760	139.7946 142.0646 144.2973 146.4933 148.6555 150.7826 152.8759 154.99357 156.9620 158.99547 160.9132 162.8367 164.7241 166.5741 168.3846 170.1536 171.8780 173.5550 175.1807 176.7511 178.2616 179.7069 181.0818 182.3806 183.5976 184.7275	Cp R 5.9101 5.9986 6.0835 6.1650 6.1650 6.3184 6.3905 6.5264 6.6521 6.7115 6.7688 6.8243 6.8779 6.9300 6.9808 7.0303 7.0768 7.0303 7.0768 7.2208 7.23627 7.3149 7.3627 7.4114	1.1217 1.1198 1.1163 1.1148 1.1134 1.1121 1.1109 1.1088 1.1079 1.1071 1.1053 1.1053 1.1053 1.1055 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1046 1.1046 1.1046 1.1058 1.1058 1.1057 1.1047 1.1067 1.1067 1.1067 1.1067	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1093 1.1079 1.1065 1.1052 1.1012 1.0984 1.0984 1.0994 1.0954 1.0954 1.0954 1.0958 1.0980 1.0881 1.0881 1.0881 1.08858 1.0887 1.0887	.9995 .9994 .9993 .9993 .9990 .9986 .9983 .9975 .9975 .9975 .9975 .9958 .9954 .9954 .9988 .9984 .9988	NOT	k	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
288.0699 298.0699 318.0699 328.0699 338.0699 358.0699 358.0699 358.0699 368.0699 408.0699 418.0699 418.0699 428.0699 448.0699 458.0699 458.0699 458.0699 558.0699 568.0699 578.0699 578.0699 578.0699 578.0699 578.0699	18.9997 14.3088 10.8353 8.2443 6.8402 3.7335 2.2502 1.3790 1.0860 .8586 .6814 .5429 .4341 .3483 .2805 .2267 .1839 .1497 .1222 .1002 .00824 .0680 .0563	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829 .3649 .4687 .5992 .7630 .9674 1.2213 1.5354 1.9223 2.3966 2.9757 3.6792 4.5300 5.5539 6.7799	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.8156 11.0541 11.2946 11.7810 12.0266 12.2736 12.7710 13.0211 13.2218 13.5229 13.7742 14.0255 14.2764 15.2764 15.2704	139.7946 142.0646 144.2973 146.4937 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132 162.8356 171.8780 173.5550 175.1807 176.7511 178.2616 179.7069 181.0818 173.7554	Cp R 5.9101 5.9986 6.1650 6.1650 6.3184 6.3905 6.5264 6.5266 6.521 6.7115 6.7688 6.8243 6.8779 6.9300 6.9808 7.0303 7.0788 7.1266 7.1268 7.2208 7.23149 7.3627 7.4114 7.4614	Y 1.1217 1.1198 1.1180 1.1148 1.1148 1.1134 1.1109 1.1098 1.1088 1.1079 1.1079 1.1053 1.1050 1.1055 1.1050 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1046 1.1048 1.1052 1.1052 1.1053 1.1052 1.1053	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1093 1.1079 1.1055 1.1039 1.1025 1.1039 1.0970 1.0970 1.0984 1.0998 1.0938 1.0920 1.0954 1.0920 1.09858 1.0858 1.0807 1.08077 1.0778	.9996 .9995 .9994 .9993 .9990 .9988 .9988 .9983 .9975 .9975 .9975 .9958	NOT	k	0.0000 0.0000
288.0699 298.0699 318.0699 318.0699 348.0699 358.0699 368.0699 368.0699 468.0699 468.0699 418.0699 428.0699 438.0699 458.0699 458.0699 458.0699 458.0699 518.0699 518.0699 518.0699 518.0699 518.0699 518.0699 518.0699	18.9997 14.3088 10.8353 8.2443 6.3033 4.8402 3.7335 2.2502 1.7580 1.3790 1.0860 .8586 .6814 .5429 .4341 .3483 .2805 .2805 .1839 .1497 .1222 .1002 .0824 .0660 .0563 .0467	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829 .3649 .4687 .7630 .9674 1.2213 1.5354 1.9223 2.3966 2.9757 3.6792 4.5300 5.5539 6.7799 8.2403	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.8156 11.0541 11.7810 11.7810 12.0266 12.2736 12.2736 12.27710 13.0211 13.2718 13.5229 13.7742 14.0255 14.2764 14.5267 15.0240 15.2704 15.5746	139.7946 142.0646 144.2973 146.4939 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132 162.8367 164.7241 168.3846 170.1536 171.8780 173.5550 173.5550 176.7511 178.2616 179.7069 181.0818 182.3806 183.5976 184.7275 185.7654	Cp R 5.9101 5.9986 6.0835 6.1650 6.2433 6.3184 6.3905 6.5264 6.55904 6.55904 6.6521 6.7115 6.76283 6.8779 6.9308 7.0303 7.0768 7.1266 7.1738 7.2677 7.3149 7.3627 7.4114 7.4614 7.5131	1.1217 1.1198 1.1180 1.1163 1.1148 1.1134 1.1121 1.1109 1.1088 1.1079 1.1071 1.1053 1.1053 1.1053 1.1050 1.1047 1.1045 1.1045 1.1046 1.1048 1.1053 1.1053 1.1053 1.1053 1.1053 1.1055 1.1045 1.1045 1.1045 1.1055 1.1057 1.1057 1.1057 1.1057 1.1057 1.1057 1.1057 1.1057	1.1213 1.1174 1.1174 1.1156 1.1139 1.1107 1.1093 1.1079 1.1052 1.1039 1.1025 1.1039 1.1025 1.0998 1.0994 1.0995 1.0954 1.0954 1.0958 1.0981 1.0858 1.0858 1.0858 1.0858 1.08778 1.0776 1.0776	.9996 .9994 .9993 .9990 .9988 .9988 .9988 .9989 .9975 .9975 .9958 .9950 .9941 .9958 .9950 .9941 .9988	NOT	k	0.0000 0.0000
288.0699 298.0699 318.0699 328.0699 338.0699 358.0699 358.0699 358.0699 368.0699 408.0699 418.0699 418.0699 428.0699 448.0699 458.0699 458.0699 458.0699 558.0699 568.0699 578.0699 578.0699 578.0699 578.0699 578.0699	18.9997 14.3088 10.8353 8.2443 6.8402 3.7335 2.2502 1.3790 1.0860 .8586 .6814 .5429 .4341 .3483 .2805 .2267 .1839 .1497 .1222 .1002 .00824 .0680 .0563	.0091 .0124 .0170 .0230 .0311 .0417 .0556 .0738 .0975 .1282 .1677 .2183 .2829 .3649 .4687 .5992 .7630 .9674 1.2213 1.5354 1.9223 2.3966 2.9757 3.6792 4.5300 5.5539 6.7799	8.9954 9.2130 9.4338 9.6575 9.8841 10.1133 10.3450 10.5792 10.8156 11.0541 11.2946 11.7810 12.0266 12.2736 12.7710 13.0211 13.2218 13.5229 13.7742 14.0255 14.2764 15.2764 15.2704	139.7946 142.0646 144.2973 146.4937 148.6555 150.7826 152.8759 154.9357 156.9620 158.9547 160.9132 162.8356 171.8780 173.5550 175.1807 176.7511 178.2616 179.7069 181.0818 173.7554	Cp R 5.9101 5.9986 6.1650 6.1650 6.3184 6.3905 6.5264 6.5266 6.521 6.7115 6.7688 6.8243 6.8779 6.9300 6.9808 7.0303 7.0788 7.1266 7.1268 7.2208 7.23149 7.3627 7.4114 7.4614	Y 1.1217 1.1198 1.1180 1.1148 1.1148 1.1134 1.1109 1.1098 1.1088 1.1079 1.1079 1.1053 1.1050 1.1055 1.1050 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1045 1.1046 1.1048 1.1052 1.1052 1.1053 1.1052 1.1053	1.1213 1.1193 1.1174 1.1156 1.1139 1.1107 1.1093 1.1079 1.1055 1.1039 1.1025 1.1039 1.0970 1.0970 1.0984 1.0998 1.0938 1.0920 1.0954 1.0920 1.09858 1.0858 1.0807 1.08077 1.0778	.9996 .9995 .9994 .9993 .9990 .9988 .9988 .9983 .9975 .9975 .9975 .9958	NOT	k	0.0000 0.0000

TABLE I.- Continued

					s/R=12.000)				_	
T	٧	р	h ∵RT	a	c _p ∕R	γ	Υe	Z	μ	k	N _{Pr}
316.0893	18.9869	.0099	9.6139	146.1010	6.1471	1.1165	1.1161	.9997			0.0000
326.0893	14.4990	.0134	9.8401	148.2787	6.2256	1.1149	1.1145	.9996			0.0000
336.0893	11.1244	.0180	10.0691	150.4238	6.3007	1.1134	1.1129	9996			0.0000
346.0893 356.0893	8.5716	.0241	10.3007	152.5375	6.3728	1.1120	1.1114	.9995 .9994			0.0000
366.0893	6.6336	.0320	10.5348	154.6205 156.6735	6.4419	1.1107 1.1096	1.1100	9992			0.0000
376.0893	5.1556 4.0234	.0424 .0558	10.7713 11.0100	158.6969	6.5082 6.5717	1.1085	1.1087 1.1075	9991			0.0000
386.0893	3.1526	.0731	11.2569	160.6912	6.6326	1.1075	1.1063	9989			0.0000
396.0893	2.4800	.0953	11.4938	162.6565	6.6911	1.1066	1.1051	.9987			0.0000
406.0893	1.9585	.1237	11.7385	164.5928	6.7472	1.1057	1.1040	.9984			0.0000
416.0893	1.5525	.1598	11.9851	166.4998	6.8012	1.1049	1.1029	.9981			0.0000
426.0893	1.2352	•2056	12.2333	168.3772	6.8530	1.1043	1.1018	.9978			0.0000
436.0893 446.0893	.9861 .7904	.2635	12.4831 12.7343	170.2242	6.9029	1.1036 1.1031	1.1007	.9974 .9969	NOT		0.0000
456.0893	.6356	.3361 .4271	12.9867	172.0401 173.8235	6.9510 6.9974	1.1026	1.0997 1.0986	.9964	AVAILABLE		0.0000
466.0893	.5128	.5405	13.2403	175.5732	7.0424	1.1022	1.0975	.9957	AVAILABLE		0.0000
476.0893	.4152	.6815	13.4950	177.2874	7.0859	1.1019	1.0963	.995u			0.0000
486.0893	.3372	.8559	13.7505	178.9641	7.1283	1.1017	1.0952	.9941			0.0000
496.0893	.2748	1.0708	14.0067	180.6010	7.1696	1.1016	1.0939	.9931			0.0000
506.0893	.2247	1.3346	14.2634	182.1954	7.2101	1.1015	1.0926	9919			0.0000
516.0893	.1843	1.6573	14.5205	183.7445	7.2499	1.1016	1.0912	.9906			0.0000
526.0893 536.0893	.1516	2.0504 2.5274	14.7778 15.0351	185.2449 186.6932	7.2892	1.1018	1.0897	.9891 .9873			0.0000
546.0893	.1251 .1035	3.1040	15.2922	188.0859	7.3282 7.3671	1.1021	1.0863	.9853			0.0000
556.0893	.0860	3.7981	15.5487	189.4192	7.4062	1.1032	1.0844	.9831			0.0000
566.C893	.0716	4.6303	15.8046	190.6896	7.4457	1.2040	1.0824	.9806			0.0000
576.0893	.0598	5.6240	16.0594	191.8940	7.4859	1.1050	1.0802	.9777			0.0000
586.0893	.C561	6.8055	16.3129	193.0299	7.5271	1.1062	1.0778	.9746			0.0000
588.8889	.0477	7.1745	16.3836	193.33 50	7.5388	1.1066	1.0772	.9736			0.0000
					/R=12.5000			7	tt.	k	N I
T	٧	p	h ∕RT	а	c _p ∕R	γ	Υe	Z	μ	ĸ	N _{Pr}
345.5154	18.9880	.0109	10.2881	152.4503	6.3671	1.1119	1.1117	.9998			0.0000
355.5154 365.5154	14.6898 11.4138	.0145 .0191	10.5223 10.7589	154.5426	6.4361	1.1106	1.1103	.9997 .9997			0.0000
375.5154	8.9041	.0252	10.7589	156.6064 158.6425	6.5021 6.5653	1.1094	1.1090 1.1078	.9996			0.0000
385.5154	6.9744	.0330	11.2388	160.6517	6.6259	1.1072	1.1067	.9995			0.0000
395.5154	5.4844	.0431	11.4820	162.6345	6.6838	1.1063	1.1056	9994			0.0000
405.5154	4.3293	.0559	11.7272	164.5914	6.7394	1.1054	1.1046	.9993			0.0000
415.5154	3.4304	.0723	11.9742	166.5227	6.7925	1.1045	1.1036	.9992			0.0000
425.5154	2.7280	.0931	12.2230	168.4287	6.8435	1.1038	1.1026	.9990			0.0000
435.5154 445.5154	2.1773	.1193	12,4735	170.3095	6.8924	1.1030	1.1017	.9988			0.0000
455.5154	1.7441 1.4015	.1524 .1938	12.7256 12.9792	172.1650 173.9949	6.9393 6.9843	1.1024	1.1008	•9986 •9983			0.0000
465.5154	1.1301	.2456	13.2341	175.7991	7.0276	1.1012	1.0991	.9980	NOT		0.0000
475.5154	.9143	.3099	13.4903	177.5769	7.0693	1.1008	1.0982	9977	AVAILABLE		0.0000
485.5154	.7420	.3898	13.7477	179.3278	7.1094	1.1003	1.0974	.9973	AVAILABLE		0.0000
495.5154	.6042	.4883	14.0062	181.0507	7.1482	1.1000	1.0965	.9968			0.0000
505.5154	.4934	.6097	14.2656	182.7448	7.1858	1.0997	1.0956	.9963			0.0000
515.5154	•4042	•7585	14.5259	184.4088	7.2223	1.0994	1.0947	.9957			0.0000
525.5154 535.5154	.3321	.9403	14.7869	186.0412	7.2578	1.0992	1.0937	.9950 .9942			0.0000.
545.5154	.2737 .2262	1.1618 1.4307	15.0485 15.3106	187.6404 189.2047	7.2925 7.3265	1.0991 1.0991	1.0927 1.0916	.9942			0.0000
555.5154	.1875	1.7560	15.5730	190.7319	7.3600	1.0991	1.0905	.9922			0.0000
565.5154	.1558	2.1482	15.8356	192.2201	7.3932	1.0993	1.0893	.9910			0.0000
575.5154	•1299	2.6195	16.0982	193.6668	7.4262	1.0995	1.0881	.9896			0.0000
585.5154	.1085	3.1838	16.3607	195.0700	7.4592	1.0998	1.0867	.9881			0.0000
588.8889	.1022	3.3982	16.4492	195.5330	7.4704	1.1000	1.0862	•9876			0.0000

TABLE I.- Continued

				:	s /R=13.000	00					
τ	٧	р	h ∕RT	a	c∕R p	γ	Υe	Z	μ	k	N _{Pr}
376.4638	18.9882	.0118	11.0212	158.8626	6.5699	1.1081	1.1079	•9998			0.0000
386.4638 396.4638	14.8803 11.7029	.0155	11.2626 11.5062	160.8755 162.8632	6.6299 6.6873	1.1070	1.1068 1.1057	.9998 .9997			0.0000
406.4638	9.2406	.0202 .0263	11.7518	164.8265	6.7423	1.1051	1.1047	.9997			0.0000
416.4638	7.3236	.0340	11.9993	166.7660	6.7949	1.1042	1.1038	.9996			0.0000
426.4638	5.8255	.0437	12.2486	168.6822	6.8452	1.1034	1.1029	.9995			0.0000
436.4638	4.6495	.0560	12.4996	170.5755	6.8933	1.1027	1.1021	.9994 .9993			0.0000
446.4638 456.4638	3.7251 2.9943	.0715 .0910	12.7523 13.0066	172.4463 174.2947	6.9394 6.9836	1.1020	1.1013	.9992			0.0000
466.4638	2.4147	.1153	13.2623	176.1211	7.0259	1.1007	1,0997	9991			0.0000
476.4638	1.9537	.1455	13.5194	177.9253	7.0665	1.1002	1.0990	.9989	NOT		0.0000
486.4638	1.5857	.1830	13.7778	179.7074	7.1055	1.0997	1.0983	.9987	AVAILABLE		0.0000
496.4638	1.2911 1.0544	•2293	14.0375 14.2982	181.4672 183.2045	7.1430 7.1791	1.0992	1.0976 1.0969	.9985 .9983	AVAILABLE		0.0000
506.4638 516.4638	.8636	.2864 .3565	14.5601	184.9189	7.2139	1.0984	1.0962	.9980			0.0000
526.4638	.7094	.4422	14.8229	186.6099	7.2476	1.0981	1.0955	.9977			0.0000
536.4638	.5844	.5468	15.0866	188.2770	7.2802	1.0978	1.0948	.9973			0.0000
546.4638	.4828	.6739	15.3511	189.9193	7.3119	1.0975	1.0946	•9968			0.0000
556.4638	.4000 .3322	.8280 1.0142	15.6164 15.8822	191.5361 193.1264	7.3428 7.3730	1.0973 1.0972	1.0933	•9963 •9958			0.0000
566.4638 576.4638	•3322 •2767	1.2385	16.1486	194.6891	7.4027	1.0971	1.0917	.9951			0.0000
586.4638	.2310	1.5079	16.4155	196.2230	7.4320	1.0970	1.0909	.9944			0.0000
588.8889	.2212	1.5811	16.4802	196.5905	7.4391	1.0970	1.0907	•9942	-		0.0000
				s	/R=13.500	0					
T	٧	p	h∕RT	a	c/R		Υ _e	Z	μ	k	N _{Pr}
409.0513	18.9883	.0129	11.8162	165.3551.	6.7551	1.1048	1.1046	.9998			0.0000
419.0513	15.0638	.0166	12.0643	167.2936	6.8069	1.1039	1.1037	.9998			0.0000
429.0513	11.9919	.0214	12.3143	169.2099	6.8564	1.1031	1.1029	.9998			0.0000
439.0513	9.5802	.0274	12.5659	171.1045	6.9038	1.1024	1.1021	.9997			0.0000
449.0513 459.0513	7.6825 6.1788	.0349 . 044 4	12.8193 13.0742	172.9780 174.8307	6.9491 6.9924	1.1016	1.1013 1.1006	.9997 .9996			0.0000
469.0513	4.9866	.0562	13.3306	176.6631	7.0339	1.1010	1.0999	.9996			0.0000
479.0513	4.0374	.0708	13.5884	178.4755	7.0736	1.0998	1.0992	9995			0.0000
489.0513	3.2792	.0890	13.8476	180.2681	7.1117	1.0992	1.0986	.9994	NOT		0.0000
499.0513	2.6715	.1115	14.1080	182.0411	7.1483	1.0987	1.0980	.9993	AVAILABLE		0.0000
509.0513 519.0513	2.1830 1.7891	.1392 .1731	14.3697 14.6325	183.7946 185.5287	7.1834 7.2171	1.0983 1.0978	1.0974 1.0968	.9992 .9990			0.0000
529.0513	1.4704	.2147	14.8964	187.2433	7.2497	1.0974	1.0962	9989			0.0000
539.0513	1.2119	.2653	15.1614	188.9383	7.2811	1.0970	1.0956	9987			0.0000
549.0513	1.0016	.3270	15.4272	190.6137	7.3115	1.0967	1.0950	9985			0.0000
559.0513 569.0513	*8299	.4016	15.6940	192.2690	7.3410	1.0964	1.0945	.9983			0.0000
579.0513	.6895 .5744	•4919 •6008	15.9616 16.2300	193.9041 195.5184	7.3697 7.3977	1.0961 1.0959	1.0939 1.0933	.9980 .99 77			0.0000
588.8889	.4810	.7293	16.4947	197.0860	7.4247	1.0957	1.0927	9973			0.0000
				s	/R=14.0000)					
Ţ	٧	р	h ∕RT	a	c _p ∕R	γ	Υe	Z	μ	k	N_{Pr}
443.4006	18.9928	.0139	12.6765	171.9431	μ 6.9229	1.1020	1.1018	.9999			0.0000
453.4006	15.2476	.0178	12.9306	173.8117	6.9672	1.1013	1.1011	.9998			0.0000
463.4006	12.2824	.0225	13.1863	175.6605	7.0095	1.1006	1.1004	.9998			0.0000
473.4006	9.9261	.0285	13.4435	177.4900	7.0501	1.1000	1.0998	•9998			0.0000
483.4006 493.4006	8.0473 6.5444	.0359 .0450	13.7021 13.9620	179.3006 181.0926	7.0889 7.1260	1.0994 1.0989	1.0991 1.0985	•9997 •9997			0.0000
503.4006	5.3383	.0563	14.2233	182.8664	7.1616	1.0983	1.0980	.9997	NOT		0.0000
513.4006	4.3673	.0702	14.4858	184.6224	7.1958	1.0979	1.0974	.9996	AVAILABLE		0.0000
523.4006	3.5833	.0872	14.7494	186.3606	7.2287	1.0974	1.0969	•9995	AVAILADLE		0.0000
533.4006	2.9483	.1080	15.0142	188.0813	7.2603	1.0970	1.0964	.9995			0.0000
543.4006 553.4006	2.4325 2.0124	.1333 .1641	15.2800 15.5469	189.7847 191.4708	7.2908 7.3203	1.0966 1.0962	1.0959 1.0954	•9994 •9993			0.0000
563.4006	1.6692	.2014	15.8147	193.1396	7.3489	1.0958	1.0949	.9991			0.0000
578.4004	1.3880	.2465	16.0834	194.7913	7.3766	1.0955	1.0944	.9990			0.0000
5 63.4006	1.1571	.3008	16.3530	196.4256	7.4036	1.0952	1.0940	•9989			0.0000
566.8889	1.0482	.3352	16.5013	197.3152	7.4181	1.0951	1.0937	.9988			0.0000

TABLE I.- Concluded

				s	/R=14.500	0					
τ	٧	р	h /RT	ā	c _p ∕R	γ	Υe	Z	μ	k	N _{Pr}
479.6769	18.9928	.0151	13.6061	178.6470	7.0739	1.0996	1.0994	.9999			0.0000
489.6769	15.4253	.0190	13.8657	180.4494	7.1116	1.0990	1.0989	.9999			0.0000
499.6769	12.5679	.0237	14.1266	182.2340	7.1477	1.0985	1.0983	.9999			0.0000
509.6769	10.2704	.0296	14.3887	184.0013	7.1822	1.0980	1.0978	.9998			0.0000
519.6769	8.4173	.0369	14.6521	185.7515	7.2154	1.0975	1.0972	.9998	NOT		0.0000
529.6769	6.9181	.0457	14.9166	187.4851	7.2473	1.0970	1.0968	.9998			0.0000
539.6769	5.7017	.0565	15.1823	189.2023	7.2781	1.0966	1.0963	.9997	AVAILABLE		0.0000
549.6769	4.7119	.0697	15.4490	190.9033	7.3077	1.0962	1.0958	.9997			0.0000
559.6769	3.9042	.0856	15.7168	192.5883	7.3363	1.0958	1.0954	.9996			0.0000
569.6769	3.2433	.1049	15.9855	194.2576	7.3640	1.0954	1.0956	.9996			0.0000
579.6769	2.7010	.1281	16.2551	195.9112	7.3909	1.0951	1.0945	.9995			0.0000
500.0000	2.2871	.1537	16.5044	197.4207	7.4151	1.0948	1.0942	•9994			0.0000
				s	/R=15.000	•	•				
T	V	р	h∕RT	а	c _p /R	γ	Υe	Z	μ	k	N _{Pr}
•	•	<i>r</i>		-	p	•	· e				PI
518.0177	18.9928	.0163	14.6087	185.4784	7.2095	1.0975	1.0974	.9999			0.0000
528.0177	15.6006	.0202	14.8732	187.2176	7.2415	1.0970	1.0969	9999			0.0000
538.0177	12.8514	.0250	15.1387	188.9407	7.2723	1.0966	1.0965	.9999			0.0000
548.0177	10.6153	.0308	15.4054	190.6482	7.3020	1.0962	1.0960	.9999	NOT		0.0000
558.0177	8.7915	.0379	15.6731	192.3402	7.3307	1.0958	1.0956	.9998	AV/ALL ADIE		0.0000
568.0177	7.2999	.0465	15.9418	194.0171	7.3584	1.0954	1.0952	.9998	AVAILABLE		0.0000
578.0177	6.0765	.0568	16.2115	195.6791	7.3853	1.0950	1.0948	.9998			0.0000
588.0177	5.0706	.0693	16.4821	197.3263	7.4115	1.0947	1.0944	.9997			0.0000
568.8889	4.9923	.0704	16.5058	197.4692	7.4137	1.0946	1.0944	.9997			0.0000
				c	/R=15.5000	,					
				3				7	11	k	N
T	٧	р	h ∕RT	a	c _p /R	γ	Υ _e	Z	μ		N _{Pr}
558.5828	18.9928	.0176	15.6887	192.4495	7.3319	1.0957	1.0956	.9999			0.0000
568.5828	15.7725	.0215	15.9575	194.1278	7.3595	1.0953	1.0952	.9999	NOT		0.0000
578.5828	13.1307	.0263	16.2273	195.7916	7.3863	1.0950	1.0948	.9999	AVAILABLE		0.0000
588.5828	10.9582	.0321	16.4981	197.4411	7.4123	1.0946	1.0945	.9999	AVAILABLE		0.0000
588.8889	10.8983	.0323	16.5064	197.4914	7.4131	1.0946	1.0945	.9999			0.0000

TABLE II.- THERMODYNAMIC AND TRANSPORT PROPERTIES

OF CC1₂F₂ AT CONSTANT ENTROPY

					s /R = 7.0000)					
T	٧	р	h /RT	a	c _∠ ∕R	γ	Υ _e	Z	μ	k	N_{Pr}
K	m ³ ∕kg	atm		m/sec	P		C		$N-s/m^2$	W∕m-K	FI
360.3164	.0057	26.0954	8.2479	112.0243	13.9329	1.8884	.8366	.6056	•1750E-04	•1931E-01	1.1925
370.3164	.0048	30.2318	8.3321	109.5125	15.9587	2.1247	.8241	.5716	.1862E-04	.2050E-01	1.3692
380.3164	.0040	24.7858	8.4100	108.1905	18.3336	2.4039	.8287	.5403	.1994E-04	.2183E-01	1.5823
390.3164	.0034	39.8921	8.4840	108.6493	20.5504	2.6612	.8577	.5129	.2151E-04	.2332E-01	1.7964
400.3164	.0029 .0025	45.7829 52.8004	8.5567	111.3530 116.4876	21.7374 21.4366	2.7891	.9172	4912	.2336E+04	.2502E-01	1.9176 1.9193
410.3164 420.3164	.0022	61.3888	8.6310 8.7097	123.9970	20.1322	2.7351 2.5645	1.0097	.4764	.2555E-04	.2921E-01	1.8316
430.3164	.0019	72.0816	8.7951	134.1014	18.5440	-2.3691	1.2893	.4696 .4715	.2813E-04 .3120E-04	.3180E-01	1.7187
432.6513	.0019	74.9502	8.8163	136.9741	18.1675	2.3241	1.3327	.4733	.3203E-04	.3246E-01	1.6936
43240713	.0019	14.4302	0.0103	130.7171	10.1013	2.3271	1.3321	•4133	• 32035-04	. 32405-01	1.0730
				_							
				3	/R= 7.500	0					
T	٧	р	h ∕RT	a	c _p ∕R	γ	Υ _e	. Z	' μ	k	N _{Pr}
252.7848	.1104	1.4670	6.9150	135.2015	6.3093	1.1828	1.1137	.9445	.1077E-04	.1076E-01	.5965
262.7848	.0849	1.9634	7.1029	136.5668	6.5127	1.1862	1.1042	.9350	.1121E-04	·1134E-01	.6081
272.7848	.0657	2.6035	7.2899	137.6590	6.7253	1.1910	1.0937	•9239	.1166E-04	.1194E-01	.6204
282.7848	.0511	3.4198	7.4750	138.4453	6.9493	1.1976	1.0821	.9111	.1211E-04	•1255E-01	.6336
292.7848	.0400	4.4490	7.6572	138,8893	7.1880	1.2064	1.0691	.8964	•1257£-04	•1317E-01	.6480
302.7848	.0315	5.7301	7.8354	138.9580	7.4449	1.2178	1.0545	.8797	•1305E-04	.1382E-01	.6638
312.7848	.0250	7.3036	8.0084	138.6199	7.7248	1.2325	1.0381	.8608	.1354E-04	.1450E-01	.6815
322.7848	.0200	9.2098	8.1752	137.8523	8.0340	1.2513	1.0199	.8397	.1405E-04	.1520E-01	.7015
332.7848	.0160	11.4855	8.3348	136.6473	8.3810	1.2753	.9999	.8162	.1458E-04	.1594E-01	.7243
342.7848	.0130	14.1620	8.4862	135.0216	8.7769	1.3062	.9785	.7906	.1514E-04	•1671E-01	• 7512
352.7848	.0106	17.2633	8.6287	133.0288	9.2359	1.3457	-9562	.7631	.1577E-04	•1754E-01	.7841
362.7848	.0087	20.8057	8.7618	130.7754	9.7760	1.3964	.9341	.7341	.1646E-04	.1843E-01	.8247
372.7848	•0072	24.8015	8.8855	128.4378	10.4166	1.4606	.9141	.7041	.1724E-04	.1939E-01	.8751
382.7848	.0060	29.2679	9.0002	126.2744	11.1735	1.5404	.8989	.6741	.1814E-04	2043E-01	.9374
392.7848	.0050	34.2337	9.1069	124.6460	12.0416	1.6351	.8922	.6449	•1919E-04	.2157E-01	1.0118
402.7848	.0042	39.7664	9.2070	123.9798	12.9741	1.7386	.8985	.6178	•2040E-04	.2283E-01	1.0954
412.7846	•0036	45.9891	9.3026	124.7305 127.2925	13.8565	1.8364	.9228	.5941	.2183E-04	.2423E-01	1.1793
422.7848	.0031 .0027	53.1016 61.3947	9.3960 9.4899	131.9195	14.5247 14.8479	1.9082 1.9385	.9693 1.0407	.5751	.2350E-04	.2580E-01	1.2497 1.2947
432.7848 442.7848	.0027	71.2509	9.4899	131.9195	14.8479	1.9385	1.0407	.5620 .5559	.2545E-04 .2772E-04	.2758E-01	1.2947
	.0023	83.1445	9.6891	147.9995	14.5277	1.8886				.2958E-01	1.3115
452.7848 461.5149	.0019	95.6676	9.7850	158.8573	14.1221	1.8391	1.2620 1.4044	•5576 •5664	.3032E-04 .3303E- 04	.31876-01 .34116-01	1.2918

TABLE II. - Continued

s /R= 8.0000												
T	٠,٨	p	h∕RT	a	c _p ∕R	γ	Υe	Z	μ	k	N_{Pr}	
212.8477	.6491	.2191	6.2015	128.8367	5.4425	1.1696	1.1517	.9849	.9000E-05	.8515E-02	.5434	
222.8477	.4856	•3059	6.3917	131.2965	5.6040	1.1667	1.1456	.9822 .9790	.9435E-05	.9052E-02	.5518 .5600	
232.8477 242.8477	.3652 .2761	.4236 .5820	6.5854 6.782 0	133.6362 -135.8460	5.7649 5.9256	1.1645 1.1629	1.1395 1.1334	.9752	.1030E-04	.1015E-01	.5681	
252.8477	.2098	.7936	6.9811	137.9135	6.0871	1.1621	1.1272	.9707	.1073E-04	.1071E-01	.5762	
262.8477	.1603	1.0738	7.1821	139.8231	6.2500	1.1620	1.1206	.9655	.1116E-04	.1127E-01	.5844	
272.8477	•1232	1.4417	7.3843	141.5566	6.4154	1.1628	1.1136	9593	.1158E-04	.1185E-01	.5927	
282.8477	.0951	1.9206	7.5870	143.0928	6.5844	1.1644	1.1061	.9520	-1201E-04	.1243E-01	.6013 .6102	
292.8477	.0739 .0577	2.5379 3.3265	7.7895 7.99 0 9	144.4079 145.4745	6.7581 6.9382	1.1671	1.0978	.9435 .9337	.1245E-04 .1289E-04	.1302E-01 .1363E-01	.6196	
302.8477 312.8477	.0453	4.3232	8.1902	146.2656	7.1264	1.1762	1.0785	.9223	.1333E-04	.1426E-01	.6297	
322.8477	.0358	5.5696	8.3865	146.7533	7.3248	1.1832	1.0671	.9093	.1379E-04	.1490E-01	.6405	
332.8477	.0284	7.1102	8.5788	146.9126	7.5361	1.1922	1.0546	.8944	.1426E-04	.1556E-01	.6525	
342.8477	.0227	8.9920	8.7659	146.7243	7.7636	1.2037	1.0407	.8777	.1475E-04	.1625E-01	.6658	
352.8477	.0183	11.2607	8.9469	146.1819	8.0114 8.2846	1.2182	1.0255 1.0094	.8590 .8384	.1525E-04 .1578E-04	.1696E-01 .1771E-01	.6807 .6972	
362.8477 372.8477	.0148 .0121	13.9612 17.1330	9.120 7 9.2866	145.2950 144.1020	8.5893	1.2594	.9926	.8161	.1635E-04	.1851E-01	.7169	
382.8477	.0099	20.8105	9.4439	142.6790	8.9322	1.2879	.9761	.7924	.1698E-04	.1935E-01	.7404	
392.8477	.0082	25.0236	9.5925	141.1525	9.3204	1.3228	.9611	.7676	.1768E-04	.2025E-01	.7687	
402.8477	.0068	29.8038	9.7322	139.7069	9.7589	1.3650	.9493	.7424	.1848E-04	.2123E-01	.8025	
412.8477	.C057	35.1853	9.8637	138.6013	10.2459	1.4142	.9433	.7175	.1939E-04	.2228E-01	.8422	
422.8477	.0048	41.2267	9.9881	138.1498	10.7681 11.2936	1.4686 1.5243	.9461 .9610	.6940 .6728	.2044E-04 .2166E-04	.2343E-01 .2470E-01	.8873 .9357	
432.8477 442.8477	.0041 .0035	48.0221 55.7190	10.1068 10.2218	138.7066 140.6210	11.7721	1.5750	.9915	.6551	.2307E-04	.2609E-01	.9834	
452.8477	.0031	64.5340	10.3353	144.1855	12.1475	1.6136	1.0403	.6419	.2471E-04	.2764E-01	1.0258	
462.8477	.0027	74.7612	10.4496	149.6115	12.3807	1.6358	1.1090	.6343	.2660E-04	.2938£-01	1.0591	
472.8477	.0023	86.7764	10.5671	157.0923	12.4662	1.6412	1.1989	.6332	.2876E-04	·3132E-01	1.0817	
482.8477	.0021	101.0499	10.6903	167.0407	12.4206	1.6324	1.3145	.6395	.3121E-04	.33496-01	1.0936	
492.7361	.0019	118.0017	10.8204	180.4013	12.2527	1.6104	1.4683	.6543	.3407E-04	.3589E-01	1.0990	
				S	/R= 8.5000	•		_				
T	٧	р	h ∕RT	а	c _p ∕R	γ	Υ _e	Z	μ	k	N _{Pr}	
191.2987	2.4369	.0530	5.8151	123.5881	5.0512	1.1740	1.1677	.9946	.8049E-05	.7375E-02	.5208	
201.2987	1.7985	.0755	5.9989	126.3789	5.2085	1.1689	1.1615	.9937	.8489E-05	.7896E-02	.5290	
211.2987	1.3344	.1066	6.1875	129.0831	5.3625	1.1645	1.1557	.9925 .9912	.8926E-05	.8423E-02 .8956E-02	.5368 .5443	
221.2987 231.2987	.9952 .7460	.1495 .2082	6.3806 6.5780	131.7004 134.2288	5.5133 5.6615	1.1606 1.1573	1.1503 1.1451	9895	.9790E-05	.9495E-02	.5514	
241.2987	.5619	.2877	6.7792	136.6646	5.8074	1.1545	1.1400	.9876	.1022E-04	.1004E-01	.5583	
251.2987	.4254	.3949	6.9840	139.0026	5.9514	1.1522	1.1351	.9853	.1064E-04	.1059E-01	.5649	
261.2987	.3236	.5383	7.1920	141.2356	6.0939	1.1504	1.1301	.9826	.1106E-04	.1115E-01	.5714	
271.2987	.2474	.7287	7.4026	143.3547	6.2356	1.1492	1.1250	.9794	.1148E-04	.1171E-01	.5777	
281.2987	.1900 .1467	.9798 1.3084	7.6156 7.8302	145.3484 147.2036	6.3769 6.5185	1.1485 1.1483	1.1198	.9756 .9711	.1190E-04 .1232E-04	.1228E-01	.5840 .5903	
291.2987 301.2987	.1138	1.7355	8.0459	148.9037	6.6612	1.1488	1.1083	9658	.1274E-04	.1343E-01	.5966	
311.2987	.0887	2.2857	8.2621	150.4312	6.8058	1.1500	1.1019	9596	.1316E-04	.1403E-01	.6031	
321.2987	.0695	2.9890	8.4781	151.7661	6.9532	1.1521	1.0949	.9524	.1358E-04	.1463E-01	.6098	
331.2987	.0547	3.8801	8.6930	152.8872	7.1046	1.1550	1.0872	.9440	.1401E-04	.1524E-01	.6168	
341.2987	.0433	4.9988	8.9060	153.7728	7.2613	1.1591	1.0787	.9343 .9232	.1444E-04 .1489E-04	.1587E-01 .1652E-01	.6243 .6323	
351.2987 361.2987	.0344	6.3894 8.0998	9.1161 9.3225	154.4028 154.7617	7.4248 7.5969	1.1644	1.0693 1.0590	.9106	.1535E-04	.1718E-01	.6411	
371.2987	.0222	10.1832	9.5241	154.8365	7.7801	1.1800	1.0478	.8964	.1583E-04	.1787E-01	.6508	
381.2987	.0180	12.6897	9.7200	154.6328	7.9768	1.1909	1.0358	.8806	.1632E-04	.1859E- 01	.6617	
391.2987	.0146	15.6713	9.9093	154.1695	8.1900	1.2045	1.0234	.8634	.1684E-04	.1934E-01	.6735	
401.2987	.0120	19.1769	10.0913	153.4915	8.4232	1.2211	1.0109	.8447	.1739E-04	.2013E-01	.6875	
411.2987	.0099	23.2521	10.2653	152.6770	8.6796	1.2414	.9993 .9895	.8250 .8045	.1800E-04 .1869E-04	.2097E-01 .2186E-01	.7040 .7236	
421.2987 431.2987	.0082 .0069	27.9403 33.2891	10.4312 10.5890	151,8461 151.1633	8.9622 9.2721	1.2656 1.2940	.9831	.7839	.1945E-04	.2282E-01	.7466	
441.2987	.0058	39.3465	10.7392	150.8511	9.6061	1.3261	.9820	.7638	.2032E-04	.2385E-01	.7733	
451.2987	.0049	46.1851	10.8828	151.1671	9.9558	1.3610	.9886	.7450	.2132E-04	.2497E-01	.8032	
461.2987	.0042	53.9070	11.0211	152.3953	10.3049	1.3964	1.0054	.7284	.2247E-04	.2619E-01	.8353	
471.2987	.0036	62.6587	11.1559	154.8148	10.6303	1.4296	1.0347	.7149	.2379E-04	.2752E-01	.8681	
481.2987	.0032 .0028	72.6439	11.2890 11.4225	158.6708	10.9070	1.4574 1.4775	1.0785 1.1383	.7055 .7010	.2531E-04 .2705E-04	.2899E-01 .3062E-01	.899 5 .9276	
491.2987 501.2987	.0028	84.1314 97.4623	11.5588	164.1653 171.5058	11.1156 11.2473	1.4889	1.2154	.7010	.2902E-04	.3242E-01	.9511	
511.2987	.0022	113.0637	11.7000	181.0586	11.3019	1.4917	1.3135	.7100	.3123E-04	.3441E-01	.9691	
521.2987	.0020	131.4973	11.8489	193.6494	11.2771	1.4857	1.4420	.7256	.3374E-04	.3662E-01	.9816	
526.2549	.0019	141.9209	11.9267	201.4984	11.2314	1.4789	1.5231	.7368	.3517E-04	.3780E-01	.9872	

TABLE II.- Continued

s/R* 9.0000											
T	٧	p	h ∕RŢ	a	c _p /R	γ.	Ye.	Ζ,	μ	k	N _{Pr}
176.3574	7.6815	.0155	5.5537	119.4162	4.7951	1.1812	1.1787	.9979	.7384E-05	.6608E-02	. 5062
186.3574	5.6192	.0224	5.7307	122.3743	4.9549	1.1748	1.1718	.9975	.7829E-05	.7118E-02	.5148
196.3574	4.1328	.0321	5.9131	125.2521	5.1103	1.1690	1.1656	• 9971	.8270E-05	•7635E-02	.5230
206.3574	3.0556	.0457	6.1007	128.0529	5.2615	1.1640	1.1599	.9965	.8708E-05	.8158E-02	.5306
216.3574	2.2707	.0644	6.2933	130.7791	5.4088	1.1594	1.1546	.9959	.9143E-05	.8687E-02	.5378
226.3574	1.6957	.0901	6.4906	133.4320	5.5523	1.1554	1.1497	.9951	.9573E-05	.9221E-02	.5446
236.3574	1.2725	.1253	6.6924	136.0119	5.6922	1.1518	1.1451	.9942	.1000E-04	.9760E-02	.5510
246.3574	.9595	.1730	6.8984	138.5181	5.8289	1.1487	1.1407	•9931	•1042E-04	.1030E-01	.5570
256.3574	.7268	.2374	7.1084	140.9486	5.9626	1.1459	1.1365	.9918	.1084E-04	.1085E-01	.5628
266.3574	.5531	.3236	7.3221	143.3004	6.0936	1.1436	1.1324	.9903	.1126E-04	.1141E-01	.5683
276.3574	.4228	. •4363	7.5391	145.5690	6.2223	1.1416	1.1283	.9885	•1167E-04	.1196E-01	.5735
286.3574	.3247	.5902	7.7591	147.7486	6.3489	1.1400	1.1242	.9863	.1208E-04	.1253E-01	.5786
296.3574	·25C5	.7897	7.9817	149.8320	6.4740	1.1388	1.1201	.9838	•1249E-04	.1310E-01	.5835
306.3574	.1941	1.0505	8.2065	151.8099	6.5978	1.1381	1.1157	.9807	.1290E-04	.1367E-01	.5883
316.3574	.1510	1.3888	8.4330	153.6718	6.7210	1.1377	1.1112	.9771	.1331E-04	.1425E-01	.5930
326.3574	.1181	1.8248	8.6608	155.4053	6.8441	1.1379	1.1064	.9729	•1371E-04	.1483E-01	.5977
336.3574	.0927	2.3829	8.8892	156.9965	6.9676	1.1386	1.1012	.9680	•1412E-04	.1543E-01	.6025
346.3574	.0731	3.0919	9.1177	158.43C3	7.0923	1.1399	1.0955	.9622	·1453E-04	.1603E-01	.6074
356.3574	.0580	3.9857	9.3454	159.6906	7.2191	1.1419	1.0893	.9555	•1495E-04	.1665E-01	.6125
366.3574	.0462	5.1035	9.5718	160.7616	7.3487	1.1447	1.0826	.9478	•1537E-04	.1727E-01	• 61 7 9
376.3574	.0369	6.4895	9.7959	161.6285	7.4825	1.1485	1.0752	.9390	.1580E-04	.1791E-01	.6236
386.3574	.0297	8.1926	10.0169	162.2802	7.6215	1.1533	1.0672	.9290	•1624E-04	.1857E-01	.6298
396.3574	•0240	13.2656	10.2339	162.7110	7.7674	1.1595	1.0587	.9178	.1670E-04	.1925E-01	.6366
406.3574	.0196	12.7641	10.4461	162.9248	7.9217	1.1672	1.0496	.9053	•1718E-04	.1995E-01	.6442
416.3574	.0160	15.7448	10.6526	162.9392	8.0863	1.1766	1.0404	.8915	•1766E-04	.2069E-01	.6523
426.3574	.0132	19.2645	10.8528	162.7911	8.2632	1.1882	1.0312	.8767	.1819E-04	.2145E-01	.6617
436.3574	.0109	23.3786	11.0459	162.5421	8.4545	1.2020	1.0229	.8610	•1875E-04	.2226E-01	.6728
446.3574	.0091	28.1415	11.2318	162.2849	8.6616	1.2184	1.0161	.8447	.1937E-04	.2311E-01	.6859
456.3574	.0076	33.6118	11.4102	162.1451	8.8853	1.2375	1.0119	.8281	.2007E-04	.2402E-01	.7012
466.3574	.0064	39.8445	11.5815	162.2922	9.1244	1.2590	1.0118	.8120	.2085E-04	.2499E-01	.7191
476.3574	.0055	46.9137	11.7463	162.9234	9.3752	1.2826	1.0174	.7967	•2173E-04	.2603E-01	.7393
486.3574	.0047	54.9121	11.9056	164.2614	9.6305	1.3073	1.0305	.7831	.2274E-04	.2716E-01	.7617
496.3574	.0041	63.9642	12.0608	160.5356	9.8797	1.3318	1.0529	.7719	.2389E-04	.2838E-01	.7857
506.3574	.0035	74.2362	12.2134	169.9633	10.1099	1.3544	1.0863	.7639	· 2520E-04	.2971E-01	.8102
516.3574	.0031	85.9456	12.3652	174.7375	10.3088	1.3735	1.1319	.7599	.2669E-04	.3116E-01	.8342
526.3574	.0027	99.3681	12.5183	181.0402	10.4672	1.3881	1.1910	7605	.2838E-04	.3276E-01	.8568
536.3574	.0024	114.8470	12.6745	189.1057	10.5801	1.3975	1.2652	.7666	.3028E-04	.3451E-01	.8771
546.3574	.0022	132.8145	12.8363	199.3618	10.6444	1.4014	1.3586	.7788	.3240E-04	.3643E-01	.8942
556.3574	.0020	153.8471	13.0063	212.6690	10.6539	1.3990	1.4807	.7986	.3477E-04	.3854E-01	.9078
562.0107	.0019	167.3963	13.1076	222.1073	10.6306	1.3943	1.5689	.8138	.3630E-04	.3982E-01	.9155

TABLE II. - Continued

s/R= 9.5000											
T	V	p	h ∕RT	a	c _p ∕R	γ	Υe	Z	μ	k	N Pr
172.8194	17.0591	.0069	5.4941	118.4254	4.7308	1.1828	1.1816	.9990	.7225E-05	.6428E-02	.5023
182.8194	12.4499	.0100	5.6695	121.4300	4.8907	1.1760	1.1746	.9988	.7671E-05	.6936E-02	.5110
192.8194	9.1360	.0143	5.8505	124.3567	5.0459	1.1699	1.1683	.9986	8114E-05	.7450E-02	•5192
202.8194	6.7393	.0204	6.0370	127.2099	5.1966	1.1644	1.1625	.9983	8553E-05	.7970E-02	.5268
212.8194	4.9966	0288	6.2286	129.9936	5.3428	1.1595	1.1572	.9980	.8988E-05	.8496E-02	•5339
222.8194	3.7228	.0405	6.4253	132.7106	5.4847	1.1551	1.1524	.9977	•9420E-05	•9028E -02	• 5406
232.8194	2.7871	.0565	6.6267	135.3632	5.6225	1.1511	1.1479	.9972	.9847E-05	• 9564E-02	•5469
242.8194	2.0963	.0783	6.8327	137.9528	5.7564	1.1475	1.1438	•9967	•1027E-04	.1011E-01	•5527
252.8194	1.5840	.1079	7.0430	140.4802	5.8866	1.1443	1.1399	.9961	•1069E-04	•1065E-01	• 5582
262.8194	1.2022	.1476	7.2575	142.9452	6.0132	1.1414	1.1361	.9954	·1111E-04	.1120E-01	•5633
272.8194	.9165	.2009	7.4759	145.3472	6.1365	1.1389	1.1326	.9945	.1152E-04	•1175E-01	• 5682
282.8194	.7017	.2717	7.6979	147.6843	6.2567	1.1366	1.1291	.9935	.1193E-04	·1231E-01	•5727
292.8194	.5396	.3653	7.9233	149.9540	6.3741	1.1347	1.1258	.9922	.1233E-04	•1287E-01	• 5770
302.8194	.4166	.4886	8.1518	152.1525	6.4888	1.1330	1.1224	.9907	.1274E-04	.1344E-01	.5811
312.8194	.3230	.6498	8.3831	154.2752	6.6013	1.1316	1.1190	.9890	.1314E-04	.1400E-01	.5850
322.8194	.2515	.8595	8.6169	156.3163	6.7117	1.1306	1.1156	.9869	•1353E-04	•1458E-01	.5887
332.8194	.1966	1.1307	8.8527	158.2687	6.8205	1.1298	1.1120	.9845	.1393E-04	.1515E-01	• 5923
342.8194	.1544	1.4792	9.0903	160.1243	6.9281	1.1294	1.1083	.9816	•1433E-04	.1574E-01	•5958
352.8194	.1217	1.9245	9.3290	161.8737	7.0348	1.1294	1.1044	.9782	.1472E-04	.1633E-01	•5993
362.8194	.0963	2.4898	9.5686	163.5065	7.1412	1.1298	1.1002	.9742	•1512E-04	·1695E-01	.6028
372.8194	.0766	3.2029	9.8083	165.0114	7.2478	1.1307	1.0956	.9696	.1552E-04	.1753E-01	.6063
382.8194	.0611	4.0963	10.0476	166.3769	7.3552	1.1321	1.0907	.9643	•1592E-04	.1814E-01	•6099
392.8194	.0490	5.2076	10.2858	167.5918	7.4641	1.1341	1.0854	.9582	.1633E-04	.1876E-01	.6138
402.8194	.0395	6.5797	10.5223	168.6463	7.5754	1.1369	1.0797	.9513	.1674E-04	•1940E-01	-6178
412.8194	.0320	8.2604	10.7563	169.5334	7.6899	1.1404	1.0735	.9434	•1717E-04	.2005E-01	•6222
422.8194	.0260	10.3022	10.9870	170.2509	7.8087	1.1449	1.0670	.9345	.1761E-04	.2072E-01	.6270
432.8194	.0213	12.7614	11.2137	170.8039	7.9329	1.1505	1.0603	.9247	.1806E-04	.2141E-01	.6323
442.8194	.0175	15.6971	11.4356	171.2083	8.0639	1.1574	1.0535	.9140	.1853E-04	.2212E-01	.6381
452.8194	.0145	19.1700	11.6520	171.4942	8.2029	1.1657	1.0470	.9024	•1902E-04	.2286E-01	.6445
462.8194	.0120	23.2416	11.8624	171.7106	8.3511	1.1756	1.0411	.8901	.1954E-04	.2364E-01	.6521
472.8194	.0101	27.9738	12.0664	171.9291	8.5098	1.1872	1.0366	.8773	.2011E-04	.2446E-01	• 6610
482.8194	.0085	33.4335	12.2638	172.2454	8.6795	1.2007	1.0341	.8643	.2074E-04	.2532E-01	.6716
492.8194	.0072	39.6814	12.4547	172.7887	8.8597	1.2159	1.0348	.8516	.2144E-04	.2624E-01	.6840
502.8194	.0061	46.7943	12.6394	173.7096	9.0489	1.2327	1.0398	8395	.2222E-04	.2721E-01	6982
512.8194	.0053	54.8606	12.8187	175.1811	9.2437	1.2506	1.0503	.8288	.2311E-04	.2825E-01	.7142
522.8194	.0045	63.9903	12.9936	177.3874	9.4389	1.2689	1.0678	.8198	•2411E-04	.2938E-01	.7319
532.8194	.0040	74.3234	13.1653	180.5118	9.6278	1.2867	1.0936	.8134	.2525E-04	.3059E-01	.7507
542.8194	.0035	86.0381	13.3354	184.7266	9.8030	1.3031	1.1287	8101	.2653E-04	.3190E-01	.7702
552.8194	.0031	99.3583	13.5054	190.1928	9.9575	1.3173	1.1742	.8106	• 2798E-04	.3332E-01	.7899
562.6194	.0027	114.5606	13.6772	197.0838	10.0863	1.3285	1.2311	.8154	.2961E-04	.3487E-01	.8089
572.0194	.0024	131.9855	13.8527	205.6485	10.1857	1.3364	1.3013	.8253	.3142E-04	.3657E-01	.8269
582.8194	.0022	152.0628	14.0341	216.3312	10.2519	1.3404	1.3889	.8410	.3343E-04	.3841E-01	.8428
500.0007	.0021	165.7765	14.1482	224.1746	10.2734	1.3406	1.4538	.8538	.3474E-04	.3961E-01	.8512

TABLE II.- Continued

s /R=10.0000												
T	٧	р	h ∕RT	a	c _∕ R	γ	Υ _e	Z	μ	k	N _{Pr}	
194.8354	17.0611	•0077	5.8891	124.9974	5.0715	1.1682	1.1673	.9993	.8202E-05	.7554E-02	.5203	
204.8354	12.5950	.0110	6.0769	127.8498	5.2202	1.1627	1.1617	.9991	.8641E-05	.8075E-02	.5277	
214.8354	9.3450	.0156	6.2700	130.6364	5.3642	1.1578	1.1567	.9990	.9075E-05	.8602E-02	.5346	
224.8354	6.9673	.0219	6.4681	133.3605	5.5038	1.1534	1.1520	.9988	.9505E-05	.9134E-02	.5411	
234.8354	5.2191	.0305	6.6711	136.0250	5.6391	1.1494	1.1477	.9986	.9931E-05	.9670E-02	.5471	
244.8354	3.9276	.0422	6.8788	138.6324	5.7702	1.1457	1.1438	.9983	.1035E-04	.1021E-01	.5527	
254.8354	2.9690	.0581	7.0909	141.1843	5.8972	1.1424	1.1401	.9980	.1077E-04	.1076E-01	.5579	
264.8354	2.2542	.0795	7.3073	143.6820	6.0204	1.1394	1.1366	.9976	.1119E-04	.1131E-01	.5628	
274.8354	1.7188	.1082	7.5278	146.1261	6.1399	1.1367	1.1334	.9971	.1160E-04	.1186E-01	.5673	
284.8354	1.3161	.1463	7.7521	148.5169	6.2558	1.1342	1.1303	.9966	.1200E-04	.1241E-01	.5715	
294.8354	1.0121	.1969	7.9802	150.8538	6.3683	1.1320	1.1273	.9959	.1241E-04	.1297E-01	.5754	
304.8354	.7813	.2634	8.2117	153.1356	6.4776	1.1300	1.1245	.9951	.1281E-04	.1353E-01	.5791	
314.8354	6056	.3507	8.4464	155.3608	6.5840	1.1282	1.1217	. 9942	•1320E-04	.1410E-01	.5825	
324.8354	.4713	.4644	8.6841	157.5269	6.6876	1.1267	1.1189	.9931	.1360E-04	.1467E-01	.5857	
334.8354	.3682	.6120	8.9245	159.6303	6.7886	1.1254	1.1161	.9918	.1399E-04	.1524E-01	.5887	
344.8354	.2888	.8024	9.1673	161.6674	6.8873	1.1243	1.1133	.9903	.1438E-04	.1581E-01	.5915	
354.8354	.2273	1.0467	9.4123	163.6332	6.9840	1.1235	1.1104	.9885	•1476E-04	.1639E-01	.5942	
364.8354	.1797	1.3588	9.6591	165.5221	7.0789	1.1230	1.1075	•9863	.1515E-04	.1697E-01	.5968	
374.8354	.1426	1.7550	9.9073	167.3276	7.1725	1.1227	1.1044	.9838	•1553E-04	•1756E-01	.5993	
384.8354	.1136	2.2554	10.1565	169.0424	7.2650	1.1228	1.1011	.9809	.1592E-04	.1815E-01	.6018	
394.8354	.0908	2.8839	10.4063	170.6589	7.3569	1.1232	1.0976	.9776	•1630E-04	.1875E-01	.6042	
404.8354	.0729	3.6683	10.6562	172.1693	7.4486	1.1240	1.0939	.9737	.1669E-04	.1936E-01	.6067	
414.8354	.0588	4.6416	10.9056	173.5655	7.5406	1.1252	1.0899	•9692	.1708E-04	.1997E-01	.6093	
424.8354	.0476	5.8414	11.1540	174.8408	7.6336	1.1269	1.0856	.9641	•1748E-04	.2060E-01	.6120	
434.8354	.0387	7.3105	11.4008	175.9899	7.7281	1.1292	1.0811	.9584	.1788E-04	.2123E-01	.6150	
444.8354	.0316	9.0968	11.6453	177.0108	7.8250	1.1322	1.0764	.9519	.1830E-04	.2188E-01	.6182	
454.8354	•0259	11.2528	11.8869	177.9060	7.9249	1.1359	1.0715	.9447	.1872E-04	.2255E-01	•6217	
464.8354	.0214	13.8353	12.1248	178.6847	8.0288	1.1404	1.0665	.9368	.1916E-04	.2323E-01	6256	
474.8354	.0177	16.9046	12.3586	179.3654	8.1376	1.1460	1.0618	9282	.1961E-04	.2394E-01	.6299	
484.8354	.0147	20.5235	12.5875	179.9785	8.2522	1.1526	1.0575	.9190	.2008E-04	.2467E-01	.6346	
494.8354	.0123	24.7570	12.8111	180.5698	8.3736	1.1604	1.0539	.9094	.2059E -04	.2544E-01	.6402	
504.8354	.0104	29.6751	13.0290	181.2010	8.5024	1.1695	1.0518	.8995	.2113E -04	.2624E-01	•6469	
514.8354	.0088	35.3415	13.2412	181,9583	6.6388	1.1798	1.0515	.8896	.2172E-04	.2708E-01	.6548	
524.8354	.0075	41.8316	13.4476	182.9448	8.7827	1.1915	1.0541	.8800	.2238E-04	.2796E-01	.6641	
534.8354	.0064	49.2254	13.6486	184.2844	8.9331	1.2042	1.0602	.8711	.2311E-04	.2890E-01	.6749	
544.8354	.0055	57.6147	13.8447	186.1164	9.0880	1.2178	1.0711	.8634	.2393E-04	.2990E-01	.6871	
554.8354	.0048	67.1087	14.0368	168.5895	9.2443	1.2318	1.0875	.8574	.2485E-04	.3096E-01	.7068	
564.8354	.0042	77.8404	14.2259	191.8534	9.3980	1.2457	1.1106	.8535	.2588E-04	.3211E-01	.7157	
574.8354	.0037	89.9733	14.4132	196.0523	9.5447	1.2589	1.1413	.8522	.2704E-04	.3333E-01	.7315	
584.8354	.0033	103.7078	14.6003	201.3248	9.6799	1.2708	1.1801	.8542	.2835E-04	.3466E-01	.7480	
588.8889	.0031	109.7852	14.6764	203.8002	9.7305	1.2752	1.1984	.8561	.2892E-04	.3523E-01	.7547	

TABLE II.- Continued .

				s	/R=10.5000)				•	
T	٧	p	h /RT	a	c _p /R	γ	Υe	Z	μ	k	$^{\sf N}_{\sf Pr}$
217.6941	17.0662	.0087	6.3273	131.4693	5.4006	1.1561	1.1555	.9995	.9198E-05	.8753E-02	.5362
227.6941	12.7384	.0121	6.5271 6.7317	134.1869 136.8482	5.5382 5.6713	1.1518 1.1478	1.1510	.9994 .9992	.9627E-05	.9823E-02	.5424 .5482
237.6941 247.6941	9.5530 7.1967	.0169	6.9411	139.4558	5.8002	1.1441	1.1431	.9991	.1047E-04	.1037E-01	.5536
257.6941	5.4457	.0321	7.1550	142.6120	5.9248	1.1408	1.1396	.9989	.1089E-04	.1091E-01	5586
267.6941	4.1385	.0438	7.3731	144.5186	6.0455	1.1378	1.1363	.9987 .9985	.1130E-04 .1171E-04	•1146E-01 •1201E-01	.5633 .5676
277.6941 287.6941	3.1583 2.4207	.0596 .0805	7.5955 7.8218	146.9772 149.3886	6.1622 6.2752	1.1350 1.1325	1.1333	.9982	.1212E-04	.1257E-01	.5715
297.6941	1.8624	.1082	8.0519	151.7537	6.3845	1.1301	1.1277	.9978	.1252E-04	.1313E-01	.5752
307.6941	1.4387	.1447	8.2857	154.0726	6.4904	1.1280	1.1251	.9974	.1291E-04	.1369E-01	.5786
317.6941 327.6941	1.1158 .8686	.1926 .2550	8.5228 8.7632	156.3453 158.5709	6.5930 6.6923	1.1261 1.1244	1.1226	.9969 .9963	.1331E-04 .1370E-04	.1425E-01 .1482E-01	.5817 .5846
337.6941	.6788	.3361	9.0066	160.7485	6.7887	1.1228	1.1179	.9956	.1409E-04	.1538E-01	.5872
347.6941	.5324	.4408	9.2529	162.8764	6.8823	1.1214	1.1156	.9948	.1447E-04	.1595E-01	.5897
357.6941	.4192	.5754	9.5017 9.7529	164.9525 166.9742	6.9733 7.0618	1.1203 1.1193	1.1133	.9938 .9927	.1485E-04 .1523E-04	.1653E-01 .1710E-01	.5920 .5941
367.6941 377.6941	.3312 .2627	•7477 •9672	10.0062	168.9381	7.1481	1.1184	1.1087	.9914	.1561E-04	.1768E-01	. 5960
387.6941	.2091	1.2453	10.2614	170.8406	7.2325	1.1178	1.1063	.9898	.1598E-04	.1826E-01	.5979
397.6941	.1670	1.5965	10.5180	172.6770	7.3152	1.1174	1.1039	•9880	.1636E-04	.1885E-01	.5997
407.6941 417.6941	.1339 .1077	2.0365 2.5870	10.7759 11.0346	174.4435 176.1336	7.3965 7.4767	1.1173	1.1013	.9858 .9834	.1673E-04 .1710E-04	.1944E-01 .2003E-01	.6014 .6030
427.6941	.0970	3.2706	11.2937	177.7431	7.5561	1.1178	1.0958	.9805	.1748E-04	.2063E-01	.6047
437.6941	.0705	4.1156	11.5528	179.2664	7.6353	1.1185	1.0928	.9773	.1786E-04	.2124E-01	.6064
447.6941	.0574	5.1540	11.8115	180.6991	7.7144 7.7942	1.1196 1.1210	1.0896 1.0863	•9736 - •9695	.1824E -04 .1862E -04	.2185E-01 .2240E-01	.6082 .6101
457.6941 467.6941	•0469 •0384	6.4231 7.9645	12.0693 12.3255	182.0377 183.28 07	7.8750	1.1230	1.0829	.9648	.1901E-04	.2311E-01	.6121
477.6941	.0317	9.8252	12.5798	184.4295	7.9576	1.1255	1.0794	.9596	.1941E-04	.2375E-01	.6144
487.6941	.0262	12.0567	12.8314	185.4897	8.0424	1.1285	1.0758	.9539	.1983E-04	.2442E-01	.6169
497.6941	.0217 .0181	14.7150 17.8602	13.0799 13.3248	186.4729 187.3983	8.1302 -8.2217	1.1323	1.0724 1.0693	.9476 .9410	.2025E-04 .2069E-04	.2509E-01 .2579E-01	.6198 .6230
507.6941 517.6941	.0152	21.5556	13.5654	188.2946	8.3175	1.1421	1.0667	.9339	.2114E-04	.2651E-01	.6264
527.6941	.0128	25.8707	13.8015	189.2015	8.4184	1.1483	1.0650	.9266	.2161E-04	.2726E-01	.6306
537.6941	.0109	30.8698	14.0327	190.1756	8.5248	1.1554	1.0645	.9191	.2213E-04	.2804E-01	.6356
547.6941 557.6941	.0093 .0079	36.6275 43.2203	14.2589 14.4801	191.2855 192.6165	8.6368 8.7546	1.1635 1.1725	1.0658 1.0694	.9118 .9049	.2269E-04	.2885E-01 .2971E-01	.6416 .6486
567.6941	.0068	50.7317	14.6965	194.2686	8.8774	1.1824	1.0761	.8986	.2397E-04	.3061E-01	.6569
577.6941	•0059	59.2542	14.9086	196.3537	9.0040	1.1929	1.0866	.8934	.2472E-04	.3156E-01	.6664
587.6941 588.8889	.0051	68.8948	15.1170	198.9915	9.1328	1.2039	1.1017	.8896	.2556E-04	.3257E-01	.6771
300 10007	.0351	70.1271	15.1417	199.3494	9.1482	1.2052	1.1039	.8893	.2566E-04	.3269E-01	.6784
		,0,1271			5/R=11.000						
T	.0391 V	, p	h /RT				Υ _e	Z	μ	.3269E=01	N _{Pr}
T 241.4493	V 17.0620	p •0096	h / RT	a 137.8728	c/R=11.0000 c/R p 5.7172	γ 1.1461	Υ _е	Z •9996	μ •1021ε-04	k .1003E-01	N _{Pr}
T 241.4493 251.4493	V 17.0620 12.8732	p .0096 .0132	h /RT 6.8108 7.0221	a 137.8728 140.4697	5/R-11.0006 Cp/R 5.7172 5.8438	γ 1.1461 1.1426	γ _e 1.1456 1.1420	Z •9996 •9995	μ •1021E-04 •1063E-04	k .1003E-01 .1057E-01	N _{Pr} .5500
T 241.4493 251.4493 261.4493	V 17.0620 12.8732 9.7556	p .0096 .0132 .0182	h /RT 6.8108 7.0221 7.2378	a 137.8728 140.4697 143.0179	5/R-11.0006 Cp/R 5.7172 5.8438 5.9663	Y 1.1461 1.1426 1.1393	γ _e 1.1456 1.1420 1.1386	Z •9996 •9995 •9994	μ •1021E-04 •1063E-04 •1104E-04	k .1003E-01 .1057E-01 .1112E-01	N Pr .5500 .5552 .5601
T 241.4493 251.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740	p .0096 .0132	h /RT 6.8108 7.0221 7.2378 7.4579 7.6822	a 137.8728 140.4697 143.0179 145.5195 147.9764	c/R=11.0006 c/R p 5.7172 5.8438 5.9663 6.0847 6.1991	Y 1.1461 1.1426 1.1393 1.1363 1.1335	γ _e 1.1456 1.1420 1.1386 1.1355 1.1326	Z • 9996 • 9995 • 9994 • 9993	μ •1021E-04 •1063E-04	k .1003E-01 .1057E-01	N _{Pr} .5500
T 241.4493 251.4493 261.4493 271.4493 281.4493 291.4493	V 17.0620 12.8732 9.7556 7.4245 5.6740 4.3344	p .0096 .0132 .0182 .0248 .0336 .0454	h /RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104	a 137.8728 140.4697 143.0179 145.5195 147.9764 150.3901	c R c R 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097	γ 1.1461 1.1426 1.1393 1.1363 1.1335 1.1310	Ye 1.1456 1.1420 1.1386 1.1355 1.1326 1.1299	Z •9996 •9995 •9994 •9992 •9990	μ .1021E-04 .1063E-04 .1104E-04 .1146E-04 .1186E-04	k .1003E-01 .1057E-01 .1112E-01 .1166E-01 .1222E-01	NPr • 5500 • 5552 • 5601 • 5645 • 5686 • 5724
T 241.4493 251.4493 261.4493 271.4493 281.4493 301.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.3544 3.3545	0096 .0132 .0182 .0248 .0336 .0454	h /RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425	a 137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617	C/R p 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097 6.4165	Y 1.1461 1.1426 1.1393 1.1363 1.1335 1.1310 1.1287	Ye 1.1456 1.1420 1.1386 1.1355 1.1326 1.1299 1.1274	Z .9996 .9995 .9994 .9993 .9990 .9988	μ •1021E-04 •1063E-04 •1104E-04 •1186E-04 •1227E-04 •1266E-04	k .1003E-01 .1057E-01 .1112E-01 .1166E-01 .1222E-01 .127E-01 .1333E-01	NPr .5500 .5552 .5601 .5645 .5645 .5724
T 241.4493 251.4493 261.4493 271.4493 281.4493 291.4493	V 17.0620 12.8732 9.7556 7.4245 5.6740 4.3344	p .0096 .0132 .0182 .0248 .0336 .0454	h /RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104	a 137.8728 140.4697 143.0179 145.5195 147.9764 150.3901	c R c R 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097	1.1461 1.1461 1.1426 1.1393 1.1363 1.1335 1.1310 1.1287 1.1287	Ye 1.1456 1.1420 1.1386 1.1355 1.1326 1.1299 1.1274 1.1250	Z •9996 •9995 •9994 •9992 •9990	μ .1021E-04 .1063E-04 .1104E-04 .1146E-04 .1227E-04 .1266E-04	k .1003E-01 .1057E-01 .1112E-01 .1122E-01 .1277E-01 .1333E-01 .1389E-01	NPr • 5500 • 5552 • 5601 • 5645 • 5686 • 5724
T 241.4493 251.4493 261.4493 271.4493 281.4493 301.4493 311.4493 321.4493 331.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33545 2.5944 2.0143 1.5697	D .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601	a 137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0922 157.3822 159.6321	6/R=11.0000 C/R 5.71.72 5.8438 5.9663 6.0947 6.1991 6.3097 6.6155 6.7159	1.1461 1.1426 1.1393 1.1363 1.1339 1.1310 1.1287 1.1265 1.1245 1.1245	Y e 1.1456 1.1420 1.1386 1.1326 1.1226 1.1274 1.1250 1.1227 1.1205	Z .9996 .9995 .9994 .9993 .9990 .9988 .9986 .9983	μ •1021E-04 •1063E-04 •1146E-04 •1146E-04 •1227E-04 •1306E-04 •1345E-04	k .1003E-01 .1057E-01 .1112E-01 .122E-01 .1277E-01 .1338E-01 .1389E-01 .146E-01	NPC .5500 .5552 .5601 .5645 .5686 .5724 .5758 .5758 .5758
T 241.4493 251.4493 261.4493 271.4493 301.4493 301.4493 321.4493 331.4493 331.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33544 3.3545 2.0143 1.5697 1.2279	, 0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.6601 9.1059	a 137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 152.7617 157.3822 157.3822 159.6321 161.8419	6/R=11.0000 C R P 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097 6.4165 6.7159 6.7159 6.8091	Y 1.1461 1.1426 1.1393 1.1363 1.1335 1.1310 1.1287 1.1265 1.1245 1.1227	Y e 1.1456 1.1420 1.1386 1.1355 1.1326 1.1274 1.1250 1.1227 1.1205 1.1184	Z .9996 .9995 .9994 .9993 .9990 .9988 .9986 .9983 .9987	μ .1021E-04 .1063E-04 .1104E-04 .1146E-04 .1227E-04 .1266E-04 .1345E-04 .1384E-04	k .1003E-01 .1057E-01 .1112E-01 .1122E-01 .1277E-01 .1338E-01 .1346E-01 .1502E-01	NPr .5500 .5552 .5601 .5686 .5724 .5758 .5790 .5819 .5846
T 241.4493 251.4493 261.4493 281.4493 301.4493 311.4493 321.4493 331.4493 331.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.3544 4.3545 2.5944 2.0143 1.5697 1.2279	0096 0132 0182 0248 0336 0454 0609 0813 1081 1430	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1059	137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0922 157.3822 159.6321 161.8419	C/R p 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097 6.6195 6.7159 6.8091	1.1461 1.1426 1.1393 1.1363 1.1310 1.1287 1.1265 1.1245 1.1227 1.1211 1.1196	Ye 1.1456 1.1450 1.1386 1.1355 1.1326 1.1274 1.1250 1.1227 1.1205 1.1184	Z .9996 .9995 .9994 .9993 .9992 .9990 .9988 .9980 .9983 .9980	μ •10216-04 •1063E-04 •1104E-04 •1146E-04 •1227E-04 •1306E-04 •1345E-04 •1345E-04 •1422E-04 •1460E-04	k .1003E-01 .1057E-01 .1112E-01 .1122E-01 .127E-01 .1338E-01 .1349E-01 .1502E-01 .1559E-01	NPF - 5500 - 5552 - 5601 - 5645 - 5724 - 5759 - 5819 - 5846 - 5892
T 241.4493 251.4493 261.4493 271.4493 301.4493 301.4493 321.4493 331.4493 331.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.3344 3.3545 2.5944 2.0143 1.5697 1.2279 .9639 .7595	P .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1882 .2467 .3218	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.6601 9.1009 9.3546 9.6062 9.8865	a 137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0922 157.3822 159.6321 161.8419 164.0113 166.1396 168.2260	6/R=11.0000 CP P 5.7172 5.8438 5.9663 6.8847 6.1991 6.3097 6.4165 6.5197 6.6195 6.7159 6.8091 6.8993 6.9866	1.1461 1.1426 1.1393 1.1363 1.1330 1.1287 1.1265 1.1245 1.1227 1.1211 1.1196 1.1182	Ye 1.1456 1.1456 1.1355 1.1355 1.1274 1.1274 1.1271 1.126 1.1271 1.126 1.1145	Z .9996 .9995 .9994 .9993 .9990 .9988 .9980 .9983 .9980 .9977 .9972 .9961	μ .1021E-04 .1063E-04 .1104E-04 .1146E-04 .1227E-04 .1266E-04 .1345E-04 .1384E-04	k .1003E-01 .1057E-01 .1112E-01 .1122E-01 .1277E-01 .1338E-01 .1346E-01 .1502E-01	NPr .5500 .5552 .5601 .5686 .5724 .5758 .5790 .5819 .5846
T 241.4493 251.4493 261.4493 281.4493 301.4493 311.4493 321.4493 331.4493 341.4493 351.4493 351.4493 361.4493 371.4493	V. 17.0620 12.8732 9.7555 7.4245 5.6740 4.3544 2.5944 2.0143 1.5697 1.2279 9639 77595 6005	D .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1882 .2467 .3218 .4181	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1059 9.3346 9.6062 9.8605	137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0322 157.3822 159.6321 161.8419 161.8419 166.1396 168.2260 170.2690	C/R p 5.71.72 5.8438 5.9663 6.0847 6.1991 6.3097 6.6197 6.6197 6.6195 6.7159 6.8993 6.9866 7.0711 7.1530	1.1461 1.1426 1.1393 1.1363 1.1363 1.1287 1.1227 1.1245 1.1227 1.1211 1.1196 1.1182 1.1170	Y e 1.1456 1.1420 1.1386 1.1355 1.1326 1.1274 1.1257 1.1257 1.1184 1.1145 1.1145	Z .9996 .9995 .9992 .9998 .9988 .9988 .9980 .9977 .9967 .9967	μ •1021E-04 •1063E-04 •1104E-04 •1146E-04 •127E-04 •125E-04 •1345E-04 •1450E-04 •1460E-04 •1460E-04 •1536E-04	k .1003E-01 .1057E-01 .11057E-01 .1112E-01 .1222E-01 .1277E-01 .1339E-01 .1349E-01 .1502E-01 .1559E-01 .1616E-01 .1616E-01 .1673E-01 .1730E-01	NPr .5500 .5552 .5645 .5686 .5758 .5758 .5791 .5846 .5870 .5892 .5912 .5930
T 241.4493 251.4493 261.4493 271.4493 301.4493 311.4493 321.4493 331.4493 351.4493 351.4493 361.4493 361.4493 361.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33545 2.5944 2.0143 1.5697 1.2279 .9639 .7595 .6005 .4764 .3793	P .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1882 .2467 .3218 .4181 .5407	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1059 9.3546 9.6062 9.8605 10.1172	a 137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 157.3822 157.3822 157.3822 161.8419 164.0113 166.1396 168.2260 170.2699	6/R-11.000(CPR 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097 6.4165 6.7159 6.8193 6.8993 6.8993 6.9866 7.0711 7.1530	Y 1.1461 1.1426 1.1393 1.1363 1.1335 1.1287 1.1265 1.1245 1.1227 1.1211 1.1196 1.1182 1.1170 1.1159	Ye 1.1456 1.1420 1.1386 1.1326 1.1274 1.1250 1.1227 1.1205 1.1184 1.1145 1.1145 1.1107	Z .9996 .9995 .9994 .9992 .9990 .9988 .9986 .9987 .9977 .9967 .9961	μ •1021E-04 •1063E-04 •1104E-04 •1146E-04 •1227E-04 •1306E-04 •1345E-04 •1345E-04 •1492E-04 •1498E-04 •1536E-04	k .1003E-01 .1057E-01 .1112E-01 .1126E-01 .1222E-01 .1277E-01 .1333E-01 .1389E-01 .1446E-01 .1502E-01 .1673E-01 .1673E-01 .1730E-01 .1787E-01	NPC .5500 .5552 .5645 .5724 .5758 .5790 .5810 .5846 .5870 .5870 .5892 .5912 .5930
T 241.4493 251.4493 261.4493 261.4493 301.4493 321.4493 331.4493 341.4493 361.4493 361.4493 361.4493 361.4493 361.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33544 3.3545 2.5944 2.0143 1.5697 1.2279 .9639 .7595 6005 4764 .3793 .3030	P .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1882 .2467 .3218 .4181 .5407	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1009 9.3546 9.6062 9.8805 10.1172 10.3761 10.6370	137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0922 157.3822 159.6321 161.8419 164.0113 166.1396 168.2260 170.2690 172.2669	6/R=11.0000 C/R 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097 6.6195 6.7159 6.8091 6.8993 6.9866 7.0711 7.1530 7.2325 7.3098	1.1461 1.1426 1.1393 1.1363 1.1336 1.1336 1.1287 1.1265 1.1245 1.1227 1.1211 1.1196 1.1182 1.1170 1.1189 1.1159	Y e 1.1456 1.1420 1.1386 1.1355 1.1326 1.1274 1.1257 1.1257 1.1184 1.1145 1.1145	Z .9996 .9995 .9994 .9993 .9992 .9988 .9988 .9980 .9977 .9967 .9967 .9953	μ .1021E-04 .1063E-04 .1104E-04 .1146E-04 .1227E-04 .1306E-04 .1345E-04 .1345E-04 .1422E-04 .1460E-04 .1536E-04 .1536E-04	k .1003E-01 .1057E-01 .1112E-01 .1126E-01 .127E-01 .1338E-01 .1389E-01 .1559E-01 .1559E-01 .1559E-01 .1616E-01 .1673E-01 .1730E-01 .1787E-01 .1845E-01	NPT .5500 .5552 .5645 .5686 .5724 .5758 .57728 .57819 .5819 .5819 .5892 .59120 .59947 .59976
T 241.4493 251.4493 261.4493 271.4493 301.4493 311.4493 321.4493 341.4493 351.4493 361.4493 361.4493 361.4493 401.4493 401.4493 401.4493 401.4493 401.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33544 3.3545 2.5944 2.0143 1.5697 1.2279 9639 .7595 .6005 .4764 .3793 .3030 .2430 .1954	P .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1882 .2467 .3218 .4181 .5407 .6963 .6931	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1059 9.3546 9.6062 9.8805 10.1172 10.6370 10.8998 11.1641	a 137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0922 157.3822 159.6321 161.8419 164.0113 166.1396 168.2260 170.2669 174.2177 176.1192 177.9681	C R P 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097 6.4165 6.5197 6.6195 6.7159 6.7091 7.1530 7.2325 7.3098 7.3851 7.4586	1.1461 1.1426 1.1393 1.1363 1.1330 1.1287 1.1265 1.1227 1.1221 1.1196 1.1182 1.1170 1.1159 1.1159 1.1159 1.1159	Ye 1.1456 1.1456 1.1355 1.1355 1.1279 1.1274 1.1250 1.1227 1.1257 1.1184 1.1145 1.1145 1.1126 1.1105 1.1088 1.1089 1.1050 1.1050	Z .9996 .9995 .9994 .9993 .9990 .9988 .9986 .9983 .9980 .9977 .9972 .9961 .9953 .9945 .9935 .9923	μ .10216-04 .1063E-04 .1104E-04 .1146E-04 .1186E-04 .1227E-04 .136E-04 .1345E-04 .1345E-04 .1422E-04 .1458E-04 .1536E-04 .1536E-04 .1610E-04 .1610E-04 .1610E-04	k .1003E-01 .1057E-01 .1112E-01 .1126E-01 .1222E-01 .1333E-01 .1389E-01 .1559E-01 .1559E-01 .1616E-01 .1730E-01 .1737E-01 .1845E-01 .1903E-01 .1903E-01	NPr .5500 .5552 .5601 .5645 .5758 .57724 .57780 .5819 .5819 .58470 .5892 .5930 .5947 .5947 .5946 .5946 .5946
T 241.4493 251.4493 261.4493 281.4493 301.4493 321.4493 331.4493 331.4493 351.4493 361.4493 361.4493 411.4493 411.4493 411.4493 411.4493 411.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.3344 4.33545 2.5944 2.0143 1.5697 1.2279 9639 .7595 6005 4764 .3793 .3030 .2430 .2430	0096 0132 0182 00248 00336 0454 0609 0813 1081 1430 1882 2467 3218 4181 5407 6963 11402 14503 1858	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1059 9.3346 9.6062 9.8805 10.1172 10.3761 10.6370 10.8998 11.1641 11.4297	137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0922 157.3822 159.6321 161.8419 164.0113 166.1396 168.2260 170.2690 172.2669 172.2669 172.2669 177.9681 179.7618	C/R p. 5.71.72 5.8438 5.9663 6.0847 6.1991 6.3097 6.4165 6.5197 6.6195 6.7159 6.8091 6.9866 7.0711 7.1530 7.2325 7.3098 7.3851 7.4586	1.1461 1.1426 1.1393 1.1363 1.1335 1.1310 1.1287 1.1245 1.1245 1.1227 1.1211 1.1196 1.1182 1.1170 1.1159 1.1159 1.1159 1.1159	Y e 1.1456 1.1420 1.1386 1.1355 1.1326 1.1274 1.1250 1.1227 1.1251 1.1184 1.1145 1.1145 1.1145 1.1107 1.1089 1.1050 1.1031 1.1031	Z .9996 .9995 .9994 .9993 .9992 .9988 .9988 .9980 .9977 .9967 .9967 .9953 .9953 .9953 .9943	μ •1021E-04 •1063E-04 •1104E-04 •11166E-04 •1227E-04 •1306E-04 •1345E-04 •1422E-04 •1460E-04 •1536E-04 •1536E-04 •1536E-04 •1536E-04 •1536E-04	k .1003E-01 .1057E-01 .1112E-01 .1126E-01 .1227E-01 .1333E-01 .1339E-01 .1559E-01 .1559E-01 .1559E-01 .1616E-01 .1673E-01 .1730E-01 .1730E-01 .1903E-01 .2019E-01 .2019E-01	NPT .5500 .5552 .5645 .5686 .5758 .5758 .5758 .5758 .57819 .5819 .58470 .5892 .5930 .5947 .5947 .5968 .6000 .6011
T 241.4493 251.4493 261.4493 271.4493 301.4493 311.4493 321.4493 351.4493 351.4493 361.4493 361.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33545 2.5944 2.0143 1.5697 1.2279 .6039 .7595 .6005 4764 .3793 .3030 .1954 .1577 .1277	P .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1882 .2467 .3218 .4181 .5407 .6963 .8931 .1402 .14503 .18368 2.3166	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.61175 8.8601 9.1059 9.3546 9.6062 9.8805 10.1172 10.3761 10.6370 10.8998 11.1641 11.4297	137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0322 157.3822 157.3822 161.8419 164.0113 166.1396 170.2690 170.2690 174.2177 176.1192 177.9681 179.7618	C/R p 5.71.72 5.8438 5.9663 5.9664 6.1991 6.3097 6.6197 6.6197 6.6197 6.8091 7.7513 7.3098 7.3098 7.3098 7.3098 7.3098 7.3098	1.1461 1.1426 1.1393 1.1363 1.1363 1.1287 1.1227 1.1227 1.1227 1.1211 1.1196 1.1159 1.1159 1.1159 1.1159 1.1159 1.1159	Y e 1.1456 1.1420 1.1386 1.1325 1.1326 1.1274 1.1250 1.1227 1.1184 1.1145 1.1168 1.1068 1.1069 1.1050 1.1031 1.0990	Z .9996 .9995 .9992 .9990 .9988 .9986 .9983 .9987 .9967 .9967 .9967 .9953 .9945 .9910 .9894	μ •10216-04 •1063E-04 •1104E-04 •11146E-04 •1126E-04 •1227E-04 •1345E-04 •1345E-04 •1345E-04 •1345E-04 •1536E-04 •1536E-04 •1536E-04 •1573E-04 •1610E-04 •1617E-04 •1736E-04	k .1003E-01 .1057E-01 .1112E-01 .1126E-01 .127E-01 .1338E-01 .1338E-01 .1502E-01 .1559E-01 .1616E-01 .1616E-01 .1730E-01 .1730E-01 .1790E-01 .1903E-01 .1903E-01	NPr .5500 .5552 .5645 .5645 .5758 .5758 .5758 .57919 .5872 .5872 .5937 .5947 .5947 .5947 .5948 .60011
T 241.4493 251.4493 261.4493 281.4493 301.4493 321.4493 321.4493 341.4493 351.4493 361.4493 361.4493 461.4493 461.4493 461.4493 461.4493 461.4493 461.4493 461.4493 461.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33544 3.3545 2.5944 2.0143 1.5697 1.2279 .9639 .7595 .6005 .4764 .3793 .3030 .2430 .2430 .1954 .1577 .1277	P .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1882 .2467 .3218 .4181 .5407 .6963 .8931 .1402 .14503 .18368 .23166	h / RT 6.8108 7.0221 7.2278 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1059 9.3546 9.6062 9.8805 10.1172 10.6370 10.8998 11.1641 11.4297 11.6963	a 137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0922 157.3822 159.6321 161.8419 164.0113 166.1396 168.2260 170.2669 174.2177 176.1192 177.9681 179.7618 181.4969 183.1702	6/R-11.0000 CP P 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097 6.4165 6.5197 6.6195 6.7159 6.8091 6.8993 6.9866 7.0711 7.1530 7.3098 7.3851 7.4586 7.5306 7.6012	1.1461 1.1426 1.1393 1.1363 1.1330 1.1287 1.1265 1.1227 1.1221 1.1170 1.1182 1.1170 1.1159 1.1159 1.1159 1.1132 1.1132	Ye 1.1456 1.1456 1.1450 1.1386 1.1355 1.1269 1.1274 1.1257 1.1207 1.1207 1.1106 1.1145 1.1126 1.1107 1.1088 1.1059 1.1051 1.1051 1.109908	Z .9996 .9995 .9994 .9993 .9990 .9988 .9980 .9983 .9980 .9977 .9972 .9961 .9953 .9945 .9953 .9910 .9894	μ .10216-04 .1063E-04 .1104E-04 .1146E-04 .1186E-04 .1227E-04 .1266E-04 .1345E-04 .1345E-04 .1345E-04 .1422E-04 .1460E-04 .1478E-04 .1536E-04 .151683E-04 .1719E-04 .1792E-04	k .1003E-01 .1057E-01 .1112E-01 .1116E-01 .1222E-01 .1333E-01 .1339E-01 .1559E-01 .1559E-01 .1616E-01 .1730E-01 .1737E-01 .1845E-01 .1903E-01 .1903E-01 .2078E-01 .2137E-01	NPT .5500 .55552 .5601 .5645 .5758 .57724 .57758 .57758 .57790 .5819 .58470 .5892 .5930 .5947 .5947 .59462 .6000 .6011
T 241.4493 251.4493 261.4493 271.4493 301.4493 311.4493 331.4493 351.4493 351.4493 361.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33544 3.3545 2.5944 2.0143 1.5697 1.2279 9639 .7595 6005 4764 37793 .3030 .2430 .1954 .1577 .1038 .0846 .0692	P .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1682 .2467 .3218 .4181 .5407 .3218 .4181 .5407 .2453 .8931 .11402 .4503 .18368 .23166 .36390 .45319	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1059 9.3546 9.6062 9.8605 10.1172 10.6370 10.8998 11.1641 11.4297 11.9636 12.2312 12.4988	a 137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 157.3822 157.3822 157.6321 161.8419 164.0113 166.1396 170.2669 174.2177 176.1192 177.9681 179.7618 181.469 183.1702 184.7785 186.3190	6/R-11.000(CPR 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097 6.4165 6.7159 6.7159 6.8993 6.8993 6.8993 6.8993 7.2325 7.3098 7.33651 7.4586 7.7397 7.6062	1.1461 1.1426 1.1393 1.1363 1.1330 1.1330 1.1287 1.1227 1.1227 1.1211 1.1196 1.1150 1.1150 1.1150 1.1142 1.1133 1.1142	Y e 1.1456 1.1420 1.1355 1.1329 1.1274 1.1250 1.1227 1.1257 1.1264 1.1164 1.1107 1.1088 1.1050 1.1050 1.1031 1.1051 1.10946 1.0946 1.0946	Z .9996 .9993 .9992 .9998 .9986 .9983 .9980 .9977 .9961 .9953 .9945 .9923 .9910 .9877 .9856 .9833 .9806	μ •1021E-04 •1063E-04 •1104E-04 •1146E-04 •1126E-04 •1227E-04 •1345E-04 •1345E-04 •1345E-04 •1400E-04 •1400E-04 •1573E-04 •1610E-04 •179E-04 •179E-04 •1828E-04 •1828E-04	k .1003E-01 .1057E-01 .1112E-01 .1126E-01 .127E-01 .1338E-01 .1338E-01 .1502E-01 .1559E-01 .1616E-01 .1616E-01 .1730E-01 .1730E-01 .1790E-01 .1903E-01 .1903E-01	NPr .5500 .5552 .5645 .5645 .5758 .5758 .5758 .57919 .5872 .5872 .5937 .5947 .5947 .5947 .5948 .60011
T 241.4493 251.4493 261.4493 301.4493 301.4493 321.4493 331.4493 341.4493 361.4493 361.4493 461.4493 461.4493 461.4493 461.4493 461.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33544 3.3545 2.5944 2.0143 1.5697 1.2279 .9639 .7595 6005 4764 3793 3030 .2430 .1954 .1577 .1277 .1038 .0846 .0692	0096 0132 0182 0182 0248 0336 0454 0609 0813 1081 1430 1882 2467 3218 4181 5407 6963 11402 14503 1.8368 2.3166 2.9096 3.6390 4.5319	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.6601 9.1009 9.3546 9.6062 9.8605 10.1172 10.3761 10.6370 10.68998 11.1641 11.4297 11.6963 11.9636 12.2312 12.4988	a 137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0922 157.3822 157.6321 161.8419 164.0113 166.1396 170.2690 172.2669 174.2177 176.1192 177.9681 179.7618 181.4969 181.4969 181.4969 181.4969 181.4969 181.4969 181.4969 181.4969 184.7785 186.3199 187.7896	6/R=11.0000 CPR 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097 6.6195 6.7159 6.8091 6.8993 6.9866 7.0711 7.1530 7.2325 7.3098 7.3851 7.4586 7.6012 7.6708 7.7397 7.8082 7.8792	1.1461 1.1426 1.1393 1.1363 1.1335 1.1310 1.1287 1.1245 1.1227 1.1221 1.1170 1.1182 1.1170 1.1182 1.1170 1.1182 1.1170 1.1136 1.1132 1.1129	Y e 1.1456 1.1420 1.1386 1.1355 1.1326 1.1274 1.1250 1.1227 1.1205 1.1126 1.1145 1.1126 1.1108 1.1088 1.1091 1.1091 1.1091 1.10996 1.0946 1.0946 1.09898	Z .9996 .9995 .9994 .9993 .9992 .9988 .9988 .9983 .9980 .9977 .9961 .9953 .9945 .9953 .9910 .9894 .9877 .9856 .9833 .9806	10216-04 1063E-04 1104E-04 11146E-04 1126E-04 1227E-04 1306E-04 1345E-04 1422E-04 1453E-04 1536E-04 1573E-04 1610E-04 1719E-04 1719E-04	k .1003E-01 .1057E-01 .112E-01 .112E-01 .122E-01 .1233E-01 .1338E-01 .1389E-01 .1559E-01 .1559E-01 .1559E-01 .1616E-01 .1673E-01 .1787E-01 .1845E-01 .1903E-01 .2019E-01 .2019E-01 .2137E-01 .2137E-01 .2256E-01 .2317E-01	NPT .5500 .5552 .5645 .5686 .5758 .5758 .5758 .5758 .57919 .5846 .5892 .59130 .5947 .5946 .60011 .60022 .60043 .60055
T 241.4493 251.4493 261.4493 281.4493 301.4493 311.4493 321.4493 341.4493 341.4493 361.4493 361.4493 361.4493 401.4493 401.4493 421.4493 421.4493 421.4493 421.4493 431.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493 441.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.3544 3.3545 2.5944 1.5697 1.2279 9639 77595 6005 4764 3.3793 3.3030 2.2430 4.1577 4.1038 6.0692 6.0696 6.0668	D 0096 0132 0182 0182 0248 0336 0454 0609 0813 1081 1430 1882 2467 3218 4181 5407 6963 11402 14503 18368 23166 2,9096 3,6390 4,5319 5,6194	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1059 9.3346 9.6062 9.8605 10.1172 10.6370 11.6963 11.1641 11.4297 11.6963 11.9636 12.2312 12.4988 12.7659 13.0322	137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 150.37617 155.0922 157.3822 159.6321 161.8419 166.1396 168.2260 170.2690 172.2669 172.2669 177.9681 179.7618 181.4969 183.1702 184.7785 186.3190 187.7896	6/R-11.000(C/R 5.71.72 5.84.38 5.9663 6.0847 6.1991 6.3097 6.6197 6.6197 6.6197 6.70711 7.1530 7.2325 7.3098 7.3098 7.7586 7.6012 7.6002 7.6002 7.8082 7.8765	1.1461 1.1426 1.1393 1.1363 1.1363 1.1310 1.1287 1.1287 1.1245 1.1227 1.1211 1.1196 1.1182 1.1179 1.1159 1.1159 1.1142 1.1133 1.1149 1.1128	Y e 1.1456 1.1420 1.1386 1.1375 1.1326 1.1274 1.1227 1.1205 1.1184 1.1145 1.1107 1.1089 1.1050 1.1031 1.0990 1.0968 1.0922 1.0898	Z .9996 .9995 .9994 .9990 .9988 .9980 .9977 .9961 .9953 .9945 .9923 .9910 .9877 .9856 .9833 .9806 .9777 .9856	μ •1021E-04 •1048E-04 •1104E-04 •1146E-04 •1186E-04 •1266E-04 •1345E-04 •1345E-04 •1462E-04 •1536E-04 •1536E-04 •1536E-04 •1536E-04 •1573E-04 •1573E-04 •1573E-04 •1573E-04 •1573E-04 •1573E-04 •1792E-04 •1865E-04 •1865E-04	k .1003E-01 .1057E-01 .1112E-01 .1126E-01 .127E-01 .1333E-01 .1338E-01 .1559E-01 .1559E-01 .1616E-01 .1616E-01 .1730E-01 .1730E-01 .1730E-01 .2078E-01 .2078E-01 .2137E-01 .2256E-01 .2378E-01 .2378E-01	NPT .5500 .5552 .5645 .5645 .5758 .5758 .57724 .5758 .57919 .5816 .58702 .5912 .5947 .5947 .5948 .60011 .60022 .6043 .6053 .6067
T 241.4493 251.4493 261.4493 261.4493 301.4493 311.4493 331.4493 351.4493 361.4493 371.4493 471.4493 471.4493 471.4493 471.4493 471.4493 471.4493 471.4493 471.4493 501.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.3544 4.33545 2.5944 2.0143 1.5697 1.2279 9639 .7595 6005 4.764 3.3793 .2430 .1954 1.577 .1277 .1038 .0846 .0692 .0568 .0468 .0387	0096 0132 0182 0182 0248 0336 0454 0609 0813 1081 1430 1882 2467 3218 4181 5407 6963 11402 14503 18858 23166 29096 36390 45319 56194 69373 804299	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.6601 9.1009 9.3546 9.6062 9.8605 10.1172 10.3761 10.6370 10.68998 11.1641 11.4297 11.6963 11.9636 12.2312 12.4988	a 137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0922 157.3822 157.6321 161.8419 164.0113 166.1396 170.2690 172.2669 174.2177 176.1192 177.9681 179.7618 181.4969 181.4969 181.4969 181.4969 181.4969 181.4969 181.4969 181.4969 184.7785 186.3199 187.7896	6/R=11.0000 CPR 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097 6.6195 6.7159 6.8091 6.8993 6.9866 7.0711 7.1530 7.2325 7.3098 7.3851 7.4586 7.6012 7.6708 7.7397 7.8082 7.8792	1.1461 1.1426 1.1393 1.1363 1.1335 1.1310 1.1287 1.1245 1.1227 1.1221 1.1170 1.1182 1.1170 1.1182 1.1170 1.1182 1.1170 1.1136 1.1132 1.1129	Y e 1.1456 1.1420 1.1386 1.1355 1.1326 1.1274 1.1250 1.1227 1.1205 1.1126 1.1145 1.1126 1.1108 1.1088 1.1091 1.1091 1.1091 1.10996 1.0946 1.0946 1.09898	Z .9996 .9995 .9994 .9993 .9992 .9988 .9988 .9983 .9980 .9977 .9961 .9953 .9945 .9953 .9910 .9894 .9877 .9856 .9833 .9806	μ .10216-04 .1063E-04 .1104E-04 .1146E-04 .1186E-04 .1266E-04 .1366E-04 .1345E-04 .1345E-04 .1345E-04 .1422E-04 .1460E-04 .1478E-04 .1536E-04 .1536E-04 .1536E-04 .1516E-04 .1716E-04 .1716E-04 .1716E-04 .1716E-04 .1938E-04	k .1003E-01 .1057E-01 .1112E-01 .1122E-01 .1233E-01 .1338E-01 .1389E-01 .1559E-01 .1559E-01 .1616E-01 .1673E-01 .1730E-01 .1747E-01 .2078E-01 .2078E-01 .2137E-01 .2256E-01 .2378E-01 .2378E-01 .2378E-01	NPT - 5500 - 55552 - 5601 - 5645 - 5758 - 5758 - 5758 - 5759 - 5819 - 58470 - 5892 - 5910 - 6001 - 6002 - 6001 - 6002 - 6005 - 6005 - 6005 - 6007 - 60091
T 241.4493 251.4493 261.4493 261.4493 301.4493 311.4493 331.4493 351.4493 361.4493 361.4493 401.4493 501.4493 501.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33544 3.3545 2.5944 2.0143 1.5697 1.2279 9639 .7595 6005 4764 37793 .3030 .2430 .1954 .1577 .1038 .0846 .0568 .0468 .0387 .0322 .0268	P .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1682 .2467 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .6931 .4503 .6931 .8168 .7096 .36390 .45319 .56194 .56194 .5728 .7096 .7097	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1059 9.3546 9.6062 9.8605 10.1172 10.6370 10.8998 11.1641 11.4297 11.9636 12.2312 12.4988 12.7659 13.3665 13.8216	a 137.8728 140.4697 143.0179 145.5195 147.9761 150.3901 152.7617 155.7617 157.3822 157.3822 157.6321 164.0113 166.1396 170.2669 174.2177 176.1192 177.9681 179.7618 181.469 183.1702 184.7785 186.3190 187.7896 189.6321 189.6321 190.5201 191.78496 190.5201 191.78496	6/R-11.000(C/R p. 5.71.72 5.84.38 5.966.3 6.084.7 6.199.7 6.416.5 6.71.59 6.899.3 6.899.3 6.899.3 6.899.3 6.899.3 6.70.711 7.1530 7.22.5 7.30.98 7.30.88 7.33.69 7.45.86 7.73.97 8.68.01.51 8.08.61 8.08.61 8.08.61 8.08.61 8.08.61 8.08.61 8.08.61 8.08.61 8.08.61 8.08.61 8.08.61	1.1461 1.1426 1.1393 1.1363 1.1330 1.1330 1.1287 1.1225 1.1245 1.1227 1.1211 1.1196 1.1150 1.1150 1.1152 1.1133 1.1140 1.1129 1.1133 1.1140 1.1149 1.1162 1.1178 1.1178 1.1178	Y e 1.1456 1.1420 1.1386 1.1274 1.1227 1.1227 1.1255 1.1184 1.1145 1.1107 1.1089 1.1050 1.1031 1.0990 1.0968 1.0922 1.08873 1.0848 1.0848 1.08799	Z .9996 .9995 .9992 .9998 .9988 .9980 .9977 .9967 .9967 .9963 .9945 .9923 .9910 .9877 .9856 .9833 .9806 .9777 .9856 .9833 .9806 .9777 .9856 .9833 .9806 .9777 .9856 .9833 .9806 .9777 .9856 .9833 .9806 .9777 .9856 .9833 .9806 .9777 .9856 .9833 .9806 .9777 .9856 .9833 .9806 .9777 .9856 .9833 .9806 .9777 .9856 .9833 .9806 .9777 .9856 .9833 .9806	μ •1021E-04 •1063E-04 •1104E-04 •11146E-04 •1186E-04 •127E-04 •1345E-04 •1345E-04 •1460E-04 •1573E-04 •1573E-04 •1610E-04 •1756E-04 •1792E-04 •1865E-04 •1865E-04 •1792E-04 •1865E-04 •1792E-04 •1865E-04 •1792E-04 •1901E-04 •1938E-04 •2014E-04	k .1003E-01 .1057E-01 .1102E-01 .1126E-01 .1277E-01 .1339E-01 .1339E-01 .1502E-01 .1559E-01 .1513E-01 .1616E-01 .1616E-01 .1730E-01 .1787E-01 .1790E-01 .2078E-01 .2078E-01 .2137E-01 .2256E-01 .2317E-01 .2317E-01 .2440E-01 .2503E-01 .2503E-01	NPT
T 241.4493 251.4493 261.4493 301.4493 301.4493 331.4493 341.4493 361.4493 361.4493 361.4493 461.4493 471.4493 471.4493 471.4493 471.4493 471.4493 471.4493 571.4493 571.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33544 3.3545 2.5944 3.3545 2.0143 1.5697 1.2279 9639 7595 6005 4764 3793 3030 2430 1954 1577 1277 1277 1277 1277 1038 0846 00468 00387 00322 00268	P .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1682 .2467 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .5407 .3218 .321	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1009 9.3546 9.6062 9.8805 10.1172 10.6370 10.6370 11.6963 11.1641 11.4297 11.6963 11.9636 12.2312 12.4988 12.7659 13.0322 12.4988 12.7659 13.0322 13.2973 13.5605 13.8216	a 137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0922 157.3822 157.3822 161.8419 164.0113 166.1396 168.2260 170.2669 172.2669 174.2177 176.112 177.7618 181.4969 179.7618 181.4969 179.7618 181.4969 179.7618 181.4969 187.785 186.3199 187.7896 189.1896 190.5201 191.7849 192.9152	CPR 5.71.72 5.8438 5.9663 6.8847 6.1991 6.3097 6.4165 6.5197 6.6195 6.7159 6.8993 6.9866 7.0711 7.1530 7.2325 7.3098 7.3851 7.4586 7.5012 7.6708 7.7397 7.8082 7.7975 8.0151 8.0861 8.1588	1.1461 1.1426 1.1393 1.1363 1.1310 1.1287 1.1227 1.1227 1.1221 1.1170 1.1182 1.1170 1.1182 1.1170 1.1182 1.1170 1.1182 1.1132 1.1129	Y e 1.1456 1.1456 1.1355 1.1355 1.1359 1.1274 1.1227 1.1207 1.1207 1.1208 1.1145 1.1126 1.1107 1.1088 1.0090 1.1031 1.1011 1.00908 1.0946 1.0946 1.0946 1.0948 1.0873 1.0873 1.08848 1.0823 1.0777	Z .9996 .9994 .9993 .9992 .9988 .9988 .9983 .9980 .9977 .9961 .9953 .9945 .9910 .9894 .9877 .9856 .9833 .9806 .9777 .9743 .9765 .9665 .9621 .9973	10216-04 1063E-04 1104E-04 1104E-04 11186E-04 1126E-04 1227E-04 136E-04 1345E-04 1422E-04 1460E-04 1478E-04 1610E-04 1719E-04 1719E-04 1719E-04 1719E-04 1938E-04 1938E-04	k .1003E-01 .1057E-01 .112E-01 .112E-01 .122E-01 .1233E-01 .1338E-01 .1389E-01 .1559E-01 .1559E-01 .1616E-01 .1673E-01 .1730E-01 .1730E-01 .2019E-01 .2019E-01 .2317E-01 .2317E-01 .2317E-01 .2317E-01 .2317E-01 .2317E-01	NPF -5500 -5552 -5601 -5645 -5758 -57758 -57758 -57758 -57919 -5816 -5812 -5913 -5947 -5947 -5947 -6001 -6002 -6004 -6004 -6004 -6004 -6007 -600
T 241.4493 251.4493 261.4493 261.4493 301.4493 311.4493 331.4493 351.4493 361.4493 361.4493 401.4493 501.4493 501.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33544 3.3545 2.5944 2.0143 1.5697 1.2279 9639 .7595 6005 4764 37793 .3030 .2430 .1954 .1577 .1038 .0846 .0568 .0468 .0387 .0322 .0268	P .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1682 .2467 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .6931 .4503 .6931 .8168 .7096 .36390 .45319 .56194 .56194 .5728 .7096 .7097	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1059 9.3346 9.6062 9.8805 10.1172 10.6370 10.6878 11.1641 11.4297 11.6963 11.9636 12.2312 12.4988 12.77659 13.0322 13.2973 13.5605 13.8216 14.0800	a 137.8728 140.4697 143.0179 145.5195 147.9761 150.3901 152.7617 155.7617 157.3822 157.3822 157.6321 164.0113 166.1396 170.2669 174.2177 176.1192 177.9681 179.7618 181.469 183.1702 184.7785 186.3190 187.7896 189.6321 189.6321 190.5201 191.78496 190.5201 191.78496	C/R p. 7.772 5.8438 5.9663 6.0847 6.1991 6.3097 6.6195 6.7159 6.8091 7.7225 7.3098 7.3851 7.4586 7.7397 7.8082 7.87866 7.9455 8.0151 8.1588 8.2339 8.3118	1.1461 1.1466 1.1393 1.1363 1.1363 1.1310 1.1287 1.1245 1.1227 1.1221 1.1196 1.1182 1.1170 1.1159 1.1159 1.1133 1.1140 1.1133 1.1140 1.1133 1.1140 1.1134 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1140 1.1129 1.1224 1.1129 1.1224 1.1129	Y e 1.1456 1.1456 1.1366 1.1355 1.1326 1.1274 1.1227 1.1205 1.1184 1.1145 1.1107 1.1089 1.1050 1.1031 1.0990 1.1031 1.0990 1.0968 1.0973 1.0848 1.0873 1.0848	Z .9996 .9995 .9992 .9990 .9988 .9980 .9987 .9967 .9967 .9961 .9953 .9945 .9945 .9935 .9923 .9910 .9877 .9883 .9910 .9877 .9866 .9777 .9866 .9777 .9743 .9706 .9665 .97621	μ .1021E-04 .1063E-04 .1104E-04 .11146E-04 .1186E-04 .1227E-04 .1345E-04 .1345E-04 .1345E-04 .1345E-04 .1536E-04 .1536E-04 .1536E-04 .1573E-04 .1647E-04 .1573E-04 .179E-04 .179E-04 .1938E-04 .1938E-04 .1938E-04	k .1003E-01 .1057E-01 .1112E-01 .1112E-01 .1222E-01 .1277E-01 .1338E-01 .1338E-01 .1502E-01 .1559E-01 .1616E-01 .1616E-01 .1730E-01 .1730E-01 .1790E-01 .2019E-01 .2019E-01 .2256E-01 .2378E-01 .2567E-01	NPT
T 241.4493 251.4493 261.4493 301.4493 301.4493 331.4493 331.4493 351.4493 361.4493 361.4493 411.4493 411.4493 411.4493 411.4493 411.4493 411.4493 411.4493 501.4493 501.4493 501.4493 501.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33544 3.3545 2.5944 3.3545 2.5943 1.5697 1.2279 .6005 4.764 3.7393 .2430 .1954 .1577 .1277 .1038 .0846 .0692 .0568 .0468 .0387 .0322 .0268 .0224 .0189 .0159	P .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1882 .2467 .3218 .4181 .5407 .6963 .11402 .14503 .18368 .23166 .2,9096 .3,6390 .4,5319 .5,6194 .6,9373 .5,258 .0,4299 .12,66993 .15,3883 .18,5553 .22,2629	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1069 9.3546 9.6062 9.8805 10.1172 10.3761 10.6370 10.8998 11.1641 11.4297 11.9963 11.1963 12.2312 12.4488 12.77559 13.0322 12.4488 12.7559 13.0322 13.2073 13.5605 13.8216 14.0300 14.3352 14.5869	137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0922 159.6321 161.8419 164.8260 170.2669 172.2669 172.2669 174.2677 176.1192 177.97618 181.4969 183.4778 186.3199 187.7896 189.1896 190.7896	CPR 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097 6.4165 6.5197 6.6195 6.7159 6.8091 7.4325 7.3098 7.3257 7.3098 7.3851 7.4586 7.6012 7.6708 7.7397 7.8082 7.6708 8.1588 8.2339 8.3118 8.3932	1.1461 1.1466 1.1393 1.1363 1.13363 1.13363 1.13363 1.1287 1.1287 1.1245 1.1227 1.1211 1.1196 1.1182 1.1170 1.1159 1.1159 1.1128 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1133 1.1140 1.1129 1.1129 1.1129 1.1133 1.1149 1.1129 1.1129 1.1133 1.1149 1.11255 1.1255 1.1255 1.1291 1.1334	Y e 1.1456 1.1420 1.1386 1.1355 1.1279 1.1277 1.1250 1.1184 1.1164 1.1145 1.1169 1.1089 1.1031 1.0996 1.0946 1.0946 1.0946 1.0946 1.0946 1.09777 1.0873 1.0873 1.0873 1.0777	Z .9996 .9995 .9994 .9993 .9990 .9988 .9980 .9977 .9961 .9953 .9945 .9923 .9910 .9894 .9877 .9856 .9833 .9910 .9877 .9856 .9833 .9910 .9877 .9856 .9833 .9806 .9777 .9763 .9941 .9877 .9856 .9923 .9940 .9877 .9856 .9923 .9940 .9877	μ .1021E-04 .1063E-04 .1104E-04 .1116E-04 .1126E-04 .1227E-04 .1345E-04 .1345E-04 .1422E-04 .1536E-04 .1536E-04 .1536E-04 .1536E-04 .1573E-04 .1610E-04 .1647E-04 .1647E-04 .1698E-04 .1792E-04 .1938E-04 .1938E-04 .1938E-04	k .1003E-01 .1057E-01 .112E-01 .112E-01 .122E-01 .1233E-01 .1338E-01 .1389E-01 .1559E-01 .1559E-01 .1616E-01 .1673E-01 .1730E-01 .1730E-01 .2019E-01 .2019E-01 .2317E-01 .2317E-01 .2317E-01 .2317E-01 .2317E-01 .2317E-01	NPT .5502 .5552 .56465 .5758 .5758 .57758 .57758 .57758 .57919 .58460 .5892 .59947 .59947 .59960 .60011 .60022 .60043 .60055 .60077 .60125 .60
T 241.4493 251.4493 261.4493 271.4493 301.4493 311.4493 351.4493 351.4493 361.4493 361.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493 401.4493 501.4493 501.4493 501.4493 501.4493 501.4493 501.4493 501.4493 501.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33544 3.3545 2.5944 2.0143 1.5697 1.2279 9639 .7595 6005 4764 37793 .3030 .2430 .1954 -11577 -1038 60692 .0568 .0468 .0387 .0322 .0268 .0224 .0189 .0159 .0115	P .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1682 .2467 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .4181 .5407 .3218 .321	n / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1059 9.3546 9.6662 9.8605 10.1172 10.6370 10.8998 11.1641 11.4297 11.6963 11.9636 12.2312 12.4988 12.7659 13.3605 13.8616 14.0300 14.3352 14.5869 14.0347	a 137.8728 140.4697 143.0179 145.5195 147.9761 150.3822 157.3822 157.3822 157.3822 161.8419 164.0113 166.1396 170.2669 174.2177 176.1192 177.9681 179.7618 181.469 183.1702 184.7785 186.3190 187.7896 189.6321 199.5201 191.78496 190.5201 191.78496 190.5201 191.78496 190.5201 191.78496 190.5201 191.78496 190.5201 191.78496 190.5201 191.78496 190.5201 191.78496 190.5201 191.78496 190.5201 191.78496 190.5201	C R P 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097 6.4165 6.7159 6.6195 6.7159 6.8993 6.8866 7.0711 7.1530 7.2225 7.3098 7.33651 7.4586 7.7397 7.8766 6.0151 8.0861 8.2339 8.3332 8.4784 8.5579	1.1461 1.1426 1.1393 1.1363 1.1330 1.1330 1.1287 1.1245 1.1227 1.1211 1.1196 1.1150 1.1150 1.1150 1.1150 1.1140 1.1128 1.1129 1.1133 1.1140 1.1140 1.1162 1.1178 1.1178 1.1178 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.11334 1.1299 1.1334 1.1334 1.1334 1.1334 1.1334	Y e 1.1456 1.1420 1.1386 1.1325 1.1326 1.1274 1.1227 1.1205 1.1184 1.1145 1.1107 1.1089 1.1050 1.1031 1.0990 1.0946 1.0922 1.0873 1.0848 1.0873 1.0777 1.0759	Z .9996 .9995 .9994 .9993 .9988 .9986 .9983 .9980 .9977 .9967 .9961 .9953 .9945 .9969 .9877 .9961 .9953 .9945 .9969 .9877 .9961 .9953 .9945 .9969 .9877 .9961 .9953 .9910 .9894 .9877 .9856 .9877 .9856 .9877 .9856 .9877 .9856 .9877 .9856 .9877 .9856 .9877 .9856 .9877 .9856 .9877 .9856 .9877 .9856 .9877 .9856 .9877 .9856 .9877 .9856 .9877 .9856 .9877 .9856	μ •1021E-04 •1048E-04 •1104E-04 •11146E-04 •1186E-04 •1266E-04 •1345E-04 •1345E-04 •1460E-04 •1536E-04 •1536E-04 •1536E-04 •1536E-04 •1573E-04 •1573E-04 •1573E-04 •1573E-04 •1573E-04 •1573E-04 •1575E-04 •175E-04	k .1003E-01 .1057E-01 .1112E-01 .11166E-01 .1222E-01 .1277E-01 .1338E-01 .1338E-01 .1559E-01 .1559E-01 .1559E-01 .1616E-01 .1616E-01 .1730E-01 .1730E-01 .1737E-01 .2078E-01 .2137E-01 .2256E-01 .2317E-01 .2317E-01 .2317E-01 .2317E-01 .2317E-01 .2317E-01 .2317E-01 .2317E-01 .2317E-01 .2567E-01 .25632E-01 .25632E-01 .25632E-01 .25632E-01 .2639E-01 .2639E-01 .2639E-01 .2639E-01	NP
T 241.4493 251.4493 261.4493 301.4493 301.4493 331.4493 331.4493 351.4493 361.4493 361.4493 411.4493 411.4493 411.4493 411.4493 411.4493 411.4493 411.4493 501.4493 501.4493 501.4493 501.4493	V. 17.0620 12.8732 9.7556 7.4245 5.6740 4.33544 3.3545 2.5944 3.3545 2.5943 1.5697 1.2279 .6005 4.764 3.7393 .2430 .1954 .1577 .1277 .1038 .0846 .0692 .0568 .0468 .0387 .0322 .0268 .0224 .0189 .0159	P .0096 .0132 .0182 .0248 .0336 .0454 .0609 .0813 .1081 .1430 .1882 .2467 .3218 .4181 .5407 .6963 .11402 .14503 .18368 .23166 .2,9096 .3,6390 .4,5319 .5,6194 .6,9373 .5,258 .0,4299 .12,66993 .15,3883 .18,5553 .22,2629	h / RT 6.8108 7.0221 7.2378 7.4579 7.6822 7.9104 8.1425 8.3783 8.6175 8.8601 9.1069 9.3546 9.6062 9.8805 10.1172 10.3761 10.6370 10.8998 11.1641 11.4297 11.9963 11.1963 12.2312 12.4488 12.77559 13.0322 12.4488 12.7559 13.0322 13.2073 13.5605 13.8216 14.0300 14.3352 14.5869	137.8728 140.4697 143.0179 145.5195 147.9764 150.3901 152.7617 155.0922 159.6321 161.8419 164.8260 170.2669 172.2669 172.2669 174.2677 176.1192 177.97618 181.4969 183.4778 186.3199 187.7896 189.1896 190.7896	CPR 5.7172 5.8438 5.9663 6.0847 6.1991 6.3097 6.4165 6.5197 6.6195 6.7159 6.8091 7.4325 7.3098 7.3257 7.3098 7.3851 7.4586 7.6012 7.6708 7.7397 7.8082 7.6708 8.1588 8.2339 8.3118 8.3932	1.1461 1.1466 1.1393 1.1363 1.13363 1.13363 1.13363 1.1287 1.1287 1.1245 1.1227 1.1211 1.1196 1.1182 1.1170 1.1159 1.1159 1.1128 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1129 1.1133 1.1140 1.1129 1.1129 1.1129 1.1133 1.1149 1.1129 1.1129 1.1133 1.1149 1.11255 1.1255 1.1255 1.1291 1.1334	Y e 1.1456 1.1420 1.1386 1.1355 1.1279 1.1277 1.1250 1.1184 1.1164 1.1145 1.1169 1.1089 1.1031 1.0996 1.0946 1.0946 1.0946 1.0946 1.0946 1.09777 1.0873 1.0873 1.0873 1.0777	Z .9996 .9995 .9994 .9993 .9990 .9988 .9980 .9977 .9961 .9953 .9945 .9923 .9910 .9894 .9877 .9856 .9833 .9910 .9877 .9856 .9833 .9910 .9877 .9856 .9833 .9806 .9777 .9763 .9941 .9877 .9856 .9923 .9940 .9877 .9856 .9923 .9940 .9877	μ .1021E-04 .1063E-04 .1104E-04 .1116E-04 .1126E-04 .1227E-04 .1345E-04 .1345E-04 .1422E-04 .1536E-04 .1536E-04 .1536E-04 .1536E-04 .1573E-04 .1610E-04 .1647E-04 .1647E-04 .1698E-04 .1792E-04 .1938E-04 .1938E-04 .1938E-04	k .1003E-01 .1057E-01 .1112E-01 .1112E-01 .127E-01 .127E-01 .1233E-01 .1339E-01 .1559E-01 .1559E-01 .1559E-01 .1616E-01 .1673E-01 .1787E-01 .1787E-01 .1903E-01 .2019E-01 .2019E-01 .2377E-01 .2137E-01 .2378E-01 .2378E-01 .2378E-01 .2378E-01 .2503E-01 .2505E-01 .2503E-01 .2503E-01 .2503E-01	NPT .5500 .55552 .56465 .56465 .5758 .5758 .57758 .57819 .58470 .5892 .59947 .59947 .59960 .60011 .60022 .60043 .60055 .60077 .601607 .61170 .6126

TABLE II.- Continued

				:	s/R=11.500	0							
Ţ	٧	p	h∠RT	a	c _p /R	γ	Υe	Z	μ	k	N Pr		
266.1205	17.0615	.0106	7.3409	144.2247	6.0198	1.1377	1.1373	.9997	.1124E-04	•1137E-01	.5620		
276.1205 286.1205	13.0085 9.9610	.0144 .0195	7.5631 7.7895	146.7126 149.1580	6.1359 6.2480	1.1348	1.1343	•9996 •9996	.1165E-04 .1205E-04	.1192E-01 .1248E-01	•5662 •5701		
296.1205	7.6564	.0262	8.0198	151.5627	6.3563	1.1296	1.1290	9995	.1245E-04	.1303E-01	.5737		
306.1205	5.9085	.0351	8.2540	153.9282	6.4607	1.1273	1.1266	.9994	.1285E-04	·1359E-01	.5770		
316.1205	4.5772	.0468	8.4918	156.2558	6.5616	1.1252	1.1243	.9992	.1324E-04	.1415E-01	.5800		
326.1205	3.5593	.0621	8.7331	158,5463	6.6589	1.1232	1.1222	.9991	.1363E-04	·1472E-01	•5827		
336.1205 346.1205	2.7781 2.1762	.0820 .1078	8.9778 9.2256	160.8008 163.0197	6.7528 6.8435	1.1214	1.1202	.9989 .9987	.1402E-04	.1528E-01	•5852 •5874		
356.1205	1.7108	.1410	9.4766	165,2035	6.9310	1.1182	1.1165	.9985	.1478E-04	.1641E-01	.5895		
366.1205	1.3496	.1837	9.7305	167.3524	7.0155	1.1167	1.1147	.9982	.1515E-04	•1698E-01	.5913		
376.1205	1.0684	.2383	9.9871	169.4662	7.0970	1.1154	1.1130	.9979	•1552E-04	•1755E-01	.5929		
386.1205	.8487	.3079	10.2463	171.5448 173.5875	7.1759 7.2521	1.1143	1.1114	.9975 .9970	.1589E-04 .1626E-04	.1813E-01	•5943 •5956		
396.1205 406.1205	•6764 •5409	•3962 •5076	10.7720	175.5937	7.3259	1.1122	1.1098	.9964	.1662E-04	.1870E-01 .1928E-01	•5968		
416.1205	4339	.6480	11.0381	177.5622	7.3973	1.1114	1:1067	9958	.1698E-04	.1985E-01	.5978		
426.1205	.3492	.8239	11.3061	179.4919	7.4666	1.1107	1.1052	.9951	.1734E-04	.2043E-01	• 5986		
436.1205	.2819	1.0435	11.5758	161.3813	7.5340	1.1101	1.1037	.9942	.1769E-04	.2101E-01	.5994		
446.1205	.2284	1.3165	11.8471	183.2288	7.5996	1.1096 1.1093	1.1021	.9932 .9921	.1805E-04	.2159E-01	.6001		
45 6.1205 466 . 1205	•1855 •1512	1.6547 2.0720	12.1197 12.3934	185.03 25 186.7906	7.6636 7.7262	1.1091	1.1005 1.0989	.9908	.1840E-04 .1875E-04	.2218E-01 .2276E-01	.6008 .6014		
476.1205	.1237	2.5845	12.6679	188.5011	7.7877	1.1091	1.0972	.9894	.1911E-04	.2335E-01	.6019		
486.1205	:1014	3.2117	12.9430	190.1623	7.8483	1.1092	1.0955	.9877	•1946E-04	.2395E-01	.6025		
496 - 1205	.0835	3.9757	13.2184	191.7726	7.9082	1.1096	1.0938	.9858	.1981E-04	.2454E-01	.6030		
506.1205	•0689	4.9026	13.4937	193.3311	7.9679	1.1102	1.0920	.9837	.2017E-04	·2515E-01	.6037		
516.1205 526.1205	.0571 .0474	6.0219 7.3675	13.7686 14.0429	194.8377 196.2934	8.0275 8.0874	1.1110	1.0902 1.0884	.9814 .9788	.2052E-04 .2089E-04	.2575E-01 .2637E-01	.6043 .6051		
536.1205	.0395	8.9776	14.3160	197.7012	8.1481	1.1134	1.0867	.9759	.2125E-04	.2699E-01	.6060		
546.1205	.0331	10.8946	14.5877	199.0663	8.2098	1.1151	1.0850	•9728	.2163E-04	.2763E-01	.6071		
556.1205	.0278	13.1659	14.8575	200.3970	8.2730	1.1172	1.0835	.9695	.2201E-04	.2827E-01	•6084		
566.1205	.0234	15.8430	15.1251	201.7057	8.3380	1.1197	1.0822	.9659	.2240E-04	·2893E-01	.6099		
576.1205 586.1205	.0198 .0168	18.9820 22.6468	15.3901 15.6522	203.0096 204.3311	8.4055 8.4757	1.1227 1.1261	1.0814	.9622 .9584	.2280E-04	.2960E-01 .3030E-01	.6117 .6136		
588.8889	.0161	23.7616	15.7242	204.7043	8.4957	1.1272	1.0812	9573	.2333E-04	.3049E-01	•6142		
\$ /R=12.0000													
T	٧	D	h/RT	a	c _p ∕R	γ	Υe	Z	μ	k	N _{Pr}		
'	•	P	141	4	p´ ``	•	'e	_	•		PF		
291.7601	17.0622	.0116	7.9196	150.5466	6.3077	1.1305	1.1302	.9998	.1228E-04	.1279E-01	.5721		
301.7601	13.1436	.0156	8.1522	152.9351	6.4136	1.1281	1.1278	.9997	.1268E-04	•1335E-01	.5754		
311.7601	10.1654	.0208	8.3886	155.2865	6.5156	1.1259	1.1255	.9996	.1307E-04	•1391E-01	.5785		
321.7601 331.7601	7.8910 6.1484	.0277 .0366	8.6287 8.8722	157.6020 159.8830	6.6141 6.7090	1.1238	1.1233	.9996 .9995	.1346E-04 .1385E-04	•1447E-01 •1503E-01	.5813 .5839		
341.7601	4.8082	.0482	9.1190	162.1304	6.8005	1.1201	1.1195	9994	.1423E-04	.1560E-01	.5862		
351.7601	3.7735	.0632	9.3690	164.3451	6.8888	1.1185	1.1177	.9993	•1461E-04	.1616E-01	.5883		
361.7601	2.9720	.0825	9.6221	166.5280	5.9738	1.1169	1.1160	.9992	.1499E-04	.1673E-01	.5901		
371.7601	2.3487	.1073	9.8781	168.6794	7.0559	1.1155	1.1144	.9990	•1536E-04	.1730E-01	•5918		
381.7601 391.7601	1.8625 1.4818	.1389 .1791	10.1370 10.3984	170.8000 172.8899	7.1350 7.2112	1.1142	1.1129	.9988 .9986	.1573E-04 .1609E-04	.1787E-01 .1844E-01	.5932 .5945		
401.7601	1.1828	.2301	10.6624	174.9493	7.2848	1.1119	1.1100	9983	.1646E-04	•1901E-01	.5956		
411.7601	.9473	.2943	10.9288	176.9781	7.3559	1.1108	1.1086	.9980	.1682E-04	-1959E-01	.5966		
421.7601	•7609	.3752	11.1975	178.9760	7.4245	1.1099	1.1073	.9977	.1717E-04	.2016E-01	•5974		
431.7601	.6131	• 4765	11.4682 11.7409	180.9428 182.8779	7.4908 7.5550	1.1090 1.1083	1.1060	.9973 .9968	.1753E-04	.2074E-01	.5981		
441.7601 451.760 1	.4956 .4018	.6028 .7600	12.0155	184.7806	7.6172	1.1076	1.1047 1.1035	.9963	.1788E-04 .1823E- 04	.2131E-01 .21998-01	.5987 .5992		
461.7601	.3268	.9546	12.2916	186.6502	7.6779	1.1071	1.1022	9956	1857E-04	.22476-01	.5996		
471.7601	.2665	1.1949	12.5693	188.4858	7.7362	1.1066	1.1010	.9949	.1892E-04		.5999		
481.7401	-2186	1.4904	12.8483	190.2864	7.7934	1.1062	1.0997	.9941	.1926E-04	.23000-01 .23030-01	-6002		
491.7601	-1789	1.8525	13.1284	192.0510	7.8492	1.1060	1.0985	.9932	.1960E-04	.2421E-01	.6004		
501.7601 511.7601	.1472 .1215	2.2947 2.8326	13.4094 13-6911	193.7785	7.9039 7.9577	1.1059	1.0972	.9921	.1994E-04	.2480E-01	.6006		
521.7601	.1005	3.4846	13.9733	195.4683 197.1197	8.0108	1.1059 1.1061	1.0959 1.0946	.9910 .9896	.2029E-04 .2063E-04	.2538E-01	.6008		
531.7601	.0835	4.2717	14.2558	198.7324	8.0635	1.1064	1.0933	.9882	.2097E-04	.2598E-01 .2657E-01	.6010 .6012		
541.7601	•0695	5.2185	14.5383	200.3069	6.1159	1.1069	1.0920	.9865	.2131E-04	.2717E-01	.6015		
551.7601	.0580	6.3527	14.8205	201.8443	8.1684	1.1076	1.0907	.9847	.2166E-04	.2777E-01	-6018		
561.7601 571.7601	•0486 •0408	7.7060 9.3140	15.1021 15.3828	203.3471 204.8192	8.2213 8.2748	1.1085 1.1096	1.0895	.9828 .9806	.2201E-04	2838E-01	.6023		
581.7601	•0344	11.2165	15.6624	206.2665	8.3293	1.1110	1.0873	.9783	.2236E-04 .2272E-04	.2900E-01 .2963E-01	.6028 .6036		
588.8889	.0305	12.7784	15.8608	207.2873	8.3690	1.1122	1.0867	.9766	.2299E-04	.3008E-01	.6042		

TABLE II.- Continued

s /R=12-5000											
T	٧	p	h∕RT	a	c ∕R	γ	Υ _e	Z	μ	k	$^{N}_{Pr}$
318.4236	17.0662	.0127	8.5488	156.8570	6.5803	1.1244	1.1242	.9998	.1333E-04	.1428E-01	.5803
328.4236	13.2799	.0168	8.7912	159.1544	6.6761	1.1224	1.1221	.9998	.1372E-04	.1484E-01	.5830
338.4236	10.3718	.0221	9.0371	161.4191	6.7685	1.1206	1.1202	•9997	.1410E-04	.1541E-01	.5853
348.4236	8.1298	.0291	9.2863	163.6521	6.8576	1.1188	1.1185	.9997	.1448E-04	.1597E-01	.5874
358.4236	6.3949	.0380	9.5386	165.8544	6.9433	1.1172	1.1168	• 9996	-1486E-04	.1654E-01	.5893
368.4236 378.4236	5.0476 3.9977	.0495 .0642	9.7939 10.0522	168.0269 170.1704	7.0260 7.1056	1.1157 1.1144	1,1152	.9995 .9994	.1523E-04 .1560E-04	.1711E-01 .1768E-01	.5910 .5925
388.4236	3.1767	.0829	10.3132	172.2856	7.1823	1.1131	1.1123	9993	.1597E-04	.1825E-01	5938
398.4236	2.5325	.1067	10.5768	174.3729	7.2562	1.1118	1.1110	.9992	.1633E-04	.1882E-01	.5950
408.4236	2.0253	.1367	10.8430	176.4329	7.3274	1.1107	1.1097	.9991	.1669E-04	.1939E-01	5959
418.4236	1.6250	.1745	11.1116	178.4659	7.3960	1.1097	1.1084	.9989	.1705E-04	.1996E-01	.5967
428.4236	1.3078	.2220	11.3825	180:4720	7.4622	1.1087	1.1073	.9987	.1740E-04	.2053E-01	.5974
438.4236	1.0557	.2813	11.6556	182.4513	7.5260	1.1078	1.1061	.9985	.1775E-04	.2111E-01	.5980
448.4236	.8548	.3553	11.9307	184.4040	7.5877	1.1070	1.1050	.9982	.1810E-04	.2168E-01	.5984
458.4236	.6941	•4472	12.2078	186.3298	7.6473	1.1063	1.1039	.9979	.1844E-04	.2226E-01	.5987
468.4236	•5653	•5609	12.4866	188.2287	7.7049	1.1056	1.1029	.9976	.1879E-04	.2283E-01	.5990
478.4236	•4617	.7011	12.7672	190.1002	7.7607	1.1050	1.1019	.9972	.1913E-04	.2341E-01	.5991
488.4236	.3781	.8735	13.0493	191.9441	7.8149	1.1045	1.1008	.9967	-1946E-04	.2398E-01	.5992
498.4236	.3106	1.0848	13.3328	193.7601	7.8676	1.1040	1.0998	.9962	.1980E-04	.2456E-01	.5992 .5992
508.4236 518.4236	.2558	1.3428 1.6569	13.6176 13.9036	195.5476 197.3063	7.9189 7.9690	1.1037 1.1034	1.0988	.9956	.2013E-04 .2047E-04	.2514E-01 .2572E-01	.5992
	.2112							.9950			
528.4236 538.4236	.1749	2.0380	14.1905	199.0358	8.0181	1.1032	1.0968	.9942	.2080E-04	.2630E-01	.5991 .5990
548.4236	.1452 .1209	2.4988 3.0543	14.4782 14.7666	200.7360 202.4067	8.0663 8.1139	1.1031	1.0958	.9934 .9925	.2113E-04 .2146E-04	.2688E-01 .2747E-01	.5989
558.4236	.1009	3.7216	15.0554	204.0483	8.1610	1.1033	1.0939	.9914	.2179E-04	.2805E-01	.5989
568.4236	.0845	4.5206	15.3445	205.6615	8.2078	1.1036	1.0929	.9903	.2212E-04	.2864E-01	.5989
578.4236	.0709	5.4739	15.6336	207.2476	8.2547	1.1040	1.0920	.9891	.2246E-04	.2924E-01	.5989
588.4236	.0597	6.6073	15.9225	208.8087	8.3017	1.1046	1.0912	.9878	.2279E-04	.2984E-01	.5991
588.8889	.0592	6.6648	15.9360	208.8808	8.3039	1.1046	1.0911	.9877	.2281E-04	.2987E-01	.5991
				c	/R=13.0000						
							v	Z	μ	k	N.
T	V	p	h ∕RT	a	c _p ∕R	γ	Υe			K	N _{Pr}
346.1907	17.0631	.0138	9.2309	163.1766	6.8369	1.1191	1.1190	.9998	.1440E-04	.1585E-01	.5869
356.1907	13.4129	.0180	9.4826	165.3899	6.9233	1.1175	1.1173	.9998	.1478E-04	.1641E-01	.5889
366.1907	10.5770	•0235	9.7374	167.5742	7.0064	1.1160	1.1157	.9998	.1515E-04	.1698E-01	.5906
376.1907	8.3701	.0305	9.9952	169.7303	7.0865	1.1145	1.1142	.9997	·1552E-04	.1755E-01	.5921
386.1907 396.1907	6.6458 5.2940	.0394 .0508	10.2557 10.5191	171.8590 173.9612	7.1636 7.2378	1.1132	1.1128	.9997 .9996	.1589E-04 .1625E-04	.1812E-01 .1869E-01	.5934 .5946
406.1907	4.2304	.0651	10.7850	176.0375	7.3092	1.1117	1.1102	.9995	.1661E-04	.1926E-01	.5956
416.1907	3.3921	.0832	11.0534	178.0885	7.3780	1.1096	1.1091	9995	.1697E-04	.1983E-01	.5964
426.1907	2.7273	.1060	11.3242	180.1146	7.4443	1.1086	1.1079	9994	.1732E-04	.2040E-01	.5971
436.1907	2.1997	.1344	11.5972	182.1165	7.5082	1.1077	1.1068	9993	.1767E-04	.2097E-01	.5976
446.1907	1.7795	.1700	11.8725	184.0943	7.5697	1.1068	1.1058	.9991	.18026-04	.2155E-01	.5980
456.1907	1.4438	.2142	12.1498	186.0483	7.6291	1.1059	1.1048	.9990	·1836E-04	.2212E-01	.5983
466.1907	1.1747	.2689	12.4291	187.9788	7.6864	1.1052	1.1038	.9988	.18706-04	.2269E-01	.5985
476.1907	-9585	.3366	12.7103	189.8860	7.7417	1.1044	1.1029	.9986	1904E-04	.2326E-01	.5986
486.1907	.7843	.4199	12.9733	191.7698	7.7953	1.1038	1.1020	. 99.84	.1938E-04	.2384E-01	.5987
496.1907 506.1907	•6435 5303	•5222	13.2779	193.6303	7.8471	1.1032	1.1011	.9981	.19716-04	.2441E-01	.5986
516.1907	.5293	.6474 .8002	13.5640 13.8516	195.4676	7.8973	1.1027	1.1003	.9979	.20048-04	.2498E-01	.5985
526.1907	.4366 .3611	.9860	14.1406	197.2815 199.0720	7.9461 7.9936	1.1022	1.0995	.9975 .9972	.2037E-04	.2556E-01 .2613E-01	.5984 .5982
536.1907	.2994	1.2113	14.4308	200.8390	8.0399	1.1018	1.0978	.9972	.2103E-04	.2671E-01	.5979
546.1907	2488	1.4838	14.7221	202.5826	8.0852	1.1011	1.0970	9963	.2135E-04	.2728E-01	.5977
556.1907	.2073	1.8123	15.0145	204.3027	8.1297	1.1009	1.0962	.9958	.2167E-04	.2786E-01	5974
566.1907	.1732	2.2072	15.3077	205.9995	8.1734	1.1008	1.0955	.9952	.2199E-04	.2844E-01	.5971
576.1907	.1451	2.6805	15.6016	207.6734	8.2166	1.1007	1.0947	.9946	.2231E-04	.2902E-01	.5969
586.1907	.1218	3.2462	15.8961	209.3249	8.2594	1.1007	1.0940	.9939	.2264E-04	.2960E-01	.5967
588.8889	-1162	3.4169	15.9757	209.7667	8.2709	1.1007	1.0938	.9937	.2272E-04	.2976E-01	.5966

TABLE II. - Continued

s /R=13.5000											
7	V	р	h /RT	а	c _p /R	γ	Y _e .	Z	μ	k	N_{Pr}
375.1236	17.0621	.0149	9.9680	169.5193	7.0773	1.1146	1.1145	.9999	.1548E-04	.1749E-01	.5919
385.1236	13.5428	.0193	10.2283	171.6545	7.1545	1.1132	1.1131	.9998	.1585E-04	.1806E-01	.5932
395.1236	10.7831	.0249	10.4915	173.7638	7.2289	1.1120	1.1118	.9998	.1621E-04	.1863E-01	.5944
405.1236	8.6131	.0319	10.7573	175.8478	7.3005	1.1108	1.1105	.9998	.1657E-04	1920E-01	.5954
415.1236	6.9035	.0408	11.0256	177.9075	7.3694	1.1096	1.1093	•9997	.1693E-04	.19776-01	. 5962
425.1236	5.5486	.0520	11.2963	179.9433	7.4357	1.1086	1.1082	.9997	.1728E-04	.2034E-01	• 5969
435.1236	4.4735	.0660	11.5694	181.9558	7.4996	1.1076	1.1072	.9996	.1763E-04	2091E-01	.5974
445.1236	3.6175	.0835	11.8447	183.9457	7.5611	1.1067	1.1062	.9996	.1798E-04	.2148E-01	.5978
455.1236	2.9337	•1052	12.1222	185.9134	7.6204	1.1058	1.1052	.9995	.1832E-04	·2205E-01	.5981
465.1236	2.3860	.1322	12.4017	187.8592	7.6775	1.1050	1.1043	.9994	.1866E-04	.22626-01	.5983
475.1236	1.9460	•1655	12.6831	189.7835	7.7326	1.1042	1.1034	.9993	•1900E~04	.2320E-01	.5984
485.1236	1.5915	.2067	12.9665	191.6868	7.7858	1.1035	1.1026	.9992	.1934E-04	·2377E-01	.5984
495.1236	1.3051	•2572	13.2516	193.5691	7.8372	1.1028	1.1018	.9991	.1967E-04	.24348-01	.5984
505.1236	1.0730	•3191	13.5384	195.4307	7.8870	1.1022	1.1010	.9989	.2000E~04	.2491E-01	.5982
515.1236	.8845	.3946	13.8269	197.2719	7.9351	1.1016	1.1003	•9988	.2033E-04	.25488-01	.5980
525.1236	.7310	.4867	14.1168	199.0928	7.9818	1.1011	1.0995	.9986	.2065E-04	.2605E-01	.5977
535.1236	.6056	• 5985	14.4082	200.8934	8.0273	1.1006	1.0988	.9984	.2098E-04	.2663E-01	.5974
545.1236	•5030	•7339	14.7010	202.6741	8.0715	1.1002	1.0981	.9981	.2130E-04	.27208-01	.5971
555.1236	4188	.8975	14.9950	204.4348	8.1146	1.0998	1.0974	•9979	.2162E-04	.2777E-01	• 5967
565.1236	•3495	1.0944	15.2903	206.1757	8.1569	1.0994	1.0968	.9976	.2193E-04	.2834E-01	.5964
575.1236	.2924	1.3310	15.5866	207.8972	8.1983	1.0991	1.0961	.9973	.2225E-04	.2891E-01	.5960
585.1236	•2451	1.6145	15.8839	209.5994	8.2391	1.0989	1.0955	.9969	.2256E-04	.2949E-01	.5956
588.8889	.2295	1.7352	15.9961	210,2353	8.2543	1.0988	1.0953	.9968	.2268E-04	.29708-01	. 5955
					, , , , , , , , , , , , , , , , , , , ,	_					
					/R=14.0000			7		l.	NI.
T	٧	þ	h ∕RT	а	c ∕ R	γ	Υ _e	. Z	μ	k	N _{Pr}
405.2963	17.0662	.0161	10.7623	175.8991	7.3011	1.1107	1.1106	.9999	.1658E~04	.1921E-01	.5954
415.2963	13.6763	.0206	11.0307	177.9613	7.3699	1.1096	1.1094	.9999	.1693E-04	.1978E-01	. 5962
425.2963	10.9915	•0262	11.3016	180.0002	7.4360	1.1085	1.1083	9998	.1729E-04	.2035E-01	.5968
435.2963	8.8620	.0333	11.5748	182.0166	7,4997	1.1075	1.1073	.9998	.1764E-04	.2092E-01	.5974
445.2963	7.1662	.0422	11.8503	184.0109	7.5611	1.1065	1.1063	.9998	.1798E-04	.2149E-01	.5978
455.2963	5.8117	.0531	12.1280	185.9837	7.6201	1.1056	1.1054	.9997	.1833E-04	.2206E-01	.5981
465.2963	4.7266	.066B	12.4078	187.9357	7,6770	1.1048	1.1045	.9997	.1867E-04	.2263E-01	.5983
475.2963	3.8548	.0836	12.6895	189.8671	7.7319	1.1040	1.1036	.9997	.1901E~04	.2320E-01	.5983
485.2963	3.1524	.1044	12.9732	191.7785	7.7848	1.1033	1.1028	.9996	.1934E-04	.2377E-01	.5983
495.2963	2.5849	.1299	13.2587	193.6703	7.8359	1.1026	1.1021	.9995	.1967E-04	.2435E-01	.5982
505.2963	2.1251	.1612	13.5459	195.5427	7.8852	1.1019	1.1013	.9995	.2000E-04	.2492E-01	.5981
515.2963	1.7516	.1995	13.8349	197.3962	7.9330	1.1013	1.1006	.9994	.2033E-04	·2549E-01	.5978
525.2963	1.4474	.2461	14.1254	199.2309	7.9792	1.1007	1.0999	.9993	.2065E~04	.2606E-01	. 5975
535.2963	1.1990	.3027	14.4175	201.0472	8.0241	1.1002	1.0993	•9992	.2098E~04	.2663E-01	.5972
545.2963	•9956	.3713	14.7111	202.8453	8.0677	1.0996	1.0986	.9991	.2130E~04	.2719E-01	.5968
555.2963	.8287	.4542	15.0061	204.6255	8.1102	1.0992	1.0980	.9989	.2161E-04	.2776E-01	.5964
565.2963	•6913	.5541	15.3025	206.3879	8.1516	1.0987	1.0974	•9988	.2193E-04	.2833E-01	• 5960
575.2963	.5781	.6743	15.6001	208.1328	8.1921	1.0983	1.0968	•9986	.2224E-04	.2890E-01	.5955
585.2963	• 4845	.8184	15.8989	209.8605	8.2318	1.0979	1.0962	.9984	.2255E-04	.2947E-01	.5951
588.8889	•4549	.8769	16.0066	210.4770	8.2459	1.0978	1.0960	.9984	.2266E~ 04	.29678-01	.5949

11 11 1

TABLE II.- Concluded

				s	/R=14.5000	•					
T	٧	р	h/RT	a	c _p ∕R	γ	Υ _e	Z	μ	k	N _{Pr}
436.7997	17.0662	.0174	11.6165	182.3313	7.5086	1.1073	1.1072	.9999	.1769E-04	.2100E-01	.5974
446.7997	13.8057	.0220	11.8924	184.3248	7.5695	1.1063	1.1062	.9999	.1804E-04	.2157E-01	.5978
456.7997	11.2007	.0277	12.1705	186.2974	7.6282	1.1055	1.1053	.9999	.1838E-04	.2215E-01	.5981
466.7997	9.1130	.0347	12.4506	188.2495	7.6847	1.1046	1.1044	.9998	.1872E~04	.2272E-01	.5982
476.7997	7.4350	.0435	12.7328	190.1818	7.7391	1.1038	1.1036	•9998	.1906E-04	.2329E-01	.5983
486.7997	6.0824	.0543	13.0169	192.0946	7.7916	1.1031	1.1028	.9998	.1939E-04	.2386E-01	.5983
496.7997	4.9891	.0675	13.3028	193.9885	7.8423	1.1023	1.1021	.9998	.1972E-04	.2443E-01	.5981
506.7997	4.1030	.0838	13.5906	195.8638	7.8912	1.1017	1.1014	.9997	.2005E-04	.2500E-01	.5980
516.7997	3.3829	.1036	13.8800	197.7210	7.9385	1.1010	1.1007	.9997	.2038E-04	·2557E-01	.5977
526.7997	2.7961	.1278	14.1711	199.5603	7.9843	1.1004	1.1000	•9996	.2070E-04	.2614E-01	• 5974
536.7997	2.3168	.1571	14.4638	201.3821	8.0287	1.0999	1.0994	•9996	.2102E-04	.2671E-01	.5970
546.7997	1.9242	.1927	14.7580	203.1867	8.0718	1.0993	1.0988	.9995	.2134E-04	.2727E-01	• 5966
556.7997	1.6019	.2357	15.0537	204.9744	8.1138	1.0988	1.0982	.9995	.2165E-04	.2784E-01	.5962
566.7997	1.3366	.2875	15.3508	206.7455	8.1546	1.0983	1.0976	9994	.2197E-04	.2841E-01	. 5957
576.7997	1.1178	.3499	15.6493	208.5002	8.1945	1.0979	1.0971	.9993	.2228E-04	.2897E-01	.5952
586.7997	.9369	.4246	15.9490	210.2388	8.2336	1.0974	1.0965	9992	.2259E-04	· 2954E-01	5948
588.8889	.9031	.4421	16.0118	210.6000	8.2416	1.0973	1.0964	.9992	.2265E-04	.2966E-01	.5946
				s	/R=15.0000)					
Ţ	٧	р	h∕RT	а	c _p /R	Υ	Υe	Z	μ	k	N _{Pr}
469.7400	17.0662	.0187	12.5337	188.8314	7.7005	1.1043	1.1042	.9999	.1882E-04	.2288E-01	.5982
479.7400	13.9332	.0234	12.8165	190.7599	7.7543	1.1035	1.1034	.9999	.1915E-04	.2345E-01	. 5983
489.7400	11.4071	.0291	13.1013	192.6695	7.8062	1.1028	1.1027	.9999	.1949E-04	.2402E-01	.5982
499.7400	9.3637	.0362	13.3878	194.5605	7.8562	1.1021	1.1019	9999	.1982E-04	.2459E-01	.5981
509.7400	7.7061	.0449	13.6762	196.4334	7.9046	1.1014	1.1012	.9999	.2015E-04	.2516E-01	.5978
519.7400	6.3580	.0555	13.9663	198.2887	7.9514	1.1008	1.1006	.9998	.2047E-04	.2573E-01	•5976
529.7400	5.2587	.0683	14.2580	200.1266	7.9966	1.1002	1.0999	.9998	.2079E-04	.2630E-01	.5972
539.7400	4.3601	.0840	_ 14.5513	201.9477	8.0405	1.0996	1.0993	.9998	.2111E-04	.2687E-01	.5969
549.7400	3.6235	.1029	14.8462	203.7521	8.0831	1.0990	1.0987	.9997	.2143E-04	.2744E-01	.5964
559.7400	3.0184	.1258	15.1426	205.5402	8.1245	1.0985	1.0982	•9997	.2174E-04	•2800E ~0 1	• 5960
569.7400	2.5200	.1533	15.4404	207.3124	8.1648	1.0980	1.0976	.9997	.2206E-04	.2857E-01	.5955
579.7400	2.1086	.1865	15.7396	209.0689	8.2042	1.0975	1.0971	•9996	.2237E-04	.2914E-01	• 5950
588.8889	1.7948	.2225	16.0145	210.6623	8.2395	1.0971	1.0966	.9996	•2265E-04	.2965E-01	.5945
+		_	DT		/R=15.500			_			
T	٧	р	h /RT	a	c R	γ	Υ _e	Z	μ	k	N _{Pr}
504.1982	17.0662	.0200	13.5165	195.4077	7.8777	1.1017	1.1017	.9999	•1996E-04	.2485E-01	.5980
514.1982	14.0608	.0248	13.8057	197.2743	7.9253	1.1011	1.1010	.9999	.2029E-04	.2542E-01	.5977
524.1982	11.6135	.0306	14.0966	199.1237	7.9713	1.1004	1.1003	.9999	.2061E-04	.2599E-01	. 5974
534 .1982	9.6158	.0377	14.3891	200.9561	8.0158	1.0998	1.0997	•9999	.2094E-04	.2655E-01	• 5970
544.1982	7.9807	.0463	14.6832	202.7719	8.0591	1.0993	1.0991	.9999	.2125E-04	.2712E-01	15966
554.1982 564.1982	6.6392 5.5358	.0566	14.9789	204.5716	8.1010	1.0987	1.0986	•9999	.2157E-04	.2769E-01	. 5962
574.1982	4.6260	.0691 .0842	15.2760 15.5746	206.3554 208.1237	8.1419 8.1816	1.0982	1.0980	.9998	.2188E-04	.2825E-01	.5957
584.1982	3.8743	.1023	15.8746	209.8767	8.2205	1.0972	1.0975 1.0970	•9998	.2219E-04	.2882E-01	.5952
588.8889	3.5673	.1120	16.0158	210.6937	8.2385	1.0970	1.0967	•9998	.2250E-04	.2938E-01	.5947
30010007	3.7013	•1120	16.0178	210.0431	0.2303	1.0970	1.0401	•9998	.2265E-04	.2965E-01	.5945
				7	/R=16.000	•					
T	٧	р	h ⁄RT	а	c _p /R	γ	Υe	Z	μ	k	N _{Pr}
540.2907	17.0662	.0215	14.5684	202.0728	8.0421	1.0995	1.0994	9999	.2113E-04	.2690E-01	. 5966
550.2907	14.1831	.3263	14.8635	203.8800	8.0845	1.0989	1.0988	.9999	.2145E-04	.2747E-01	.5964
560.2907	11.8150	.0322	15.1602	205.6714	8.1257	1.0983	1.0983	.9999	.2176E-04	.2803E-01	.5959
570.2907	9.8646	.0392	15.4583	207.4472	8.1658	1.0978	1.0977	.9999	.2207E-04	.2860E-01	.5954
580.2907	8.2543	.0477	15.7578	209.2077	8.2050	1.0973	1.0972	•9999	.2238E-04	.2916E-01	.5949
588.8889	7.0944	.0563	16.0165	210.7096	8.2379	1.0969	1.0968	.9999	.2265E-04	.2965E-01	. 5944

TABLE III.- THERMODYNAMIC AND TRANSPORT PROPERTIES

OF CBrF₃ AT CONSTANT ENTROPY

s /R = 4.5000												
τ	٧	р	h /RT	a	c _p ∕R	γ	Υ _e	Z	μ	k	N _{Pr}	
K	m^3 / kg	atm		m/sec	r		·		N-s/m ²	W∕m-K	• • •	
329.3316 339.3316	.003u	31.6607 36.3328	4.238I 4.2451	91.3790 92.7725	13.1268	2.6534 2.9683	.8564 .8749	•5303 •5077	.2176E-04	.1477E-01	1.8222	
349.3316	.0023	41.7326	4.2400	95.9157	15.3723	3.1344	.9612	.4960	.2526E-04	.1759E-01	2.1003	
359.3316 367.3852	.0020 .0018	48.1440 54.3006	4.2198 4.1894	101.0113 106.6104	15.9865 15.1839	3.0750 2.8457	1.0584 1.1601	.4805 .4777	.2744E-04 .2941E-04	.1926E-01 .2076E-01	2.1514 2.u324	
				•	S/R= 5.300	0						
_		_	h /RT	a		γ	Υ _e	Z	μ	k	N _{Pr}	
Ť	٧	P	11 / KI	a	c _p /R	•	' e				FI	
252.6410	.0282	4.4203	4.0613	116.8788	4.8554	1.2158	1.0797	.8971	.1366E-04	.7309E-02	.8573	
262.6410	.0222	5.7296 7.3354	4.1680	117.0209 116.8241	5.0338 5.2321	1.2277 1.2438	1.0631	. 8785 . 5577	.1425E-04	.7406E-02	.8574 .0617	
272.6410 282.6410	.0176 .0140	9.2741	4.3678	116.3043	5.4557	1.2650	1.6263	.3349	.1550E-04	.9177t-02	.8705	
292.6410	.0113	11.5751	4.4592	115.5000	5.7116	1.2924	1.0078	.8103	.1615E-04	9860E-02	.8836	
302.6410	.0092	14.2638	4.5442	114.4783	5.0001	1.3274	.9891	.7842	.1685E-04	.10>6E-01	.9036	
312.6410	.0075	17.3603	4.6222	113.3394	6.3542	1.3716	.9718	.7573	.1761t-04	.1135E-01	•9308	
322.6410	.0062	20.8839	4.6930	112.2165	5.7590	1.4264	.9574	.7302	.1844E-04	.1218E-01	• 1664	
332.6410	.0052	24.8552	4.7565	111.2818	7.2288	1.4925	.4476	•7037	.1937E-04	.1367E-61	1.0121	
342.6410 352.6410	.0044 .µ037	29.3083 34.2976	4.8126 4.8610	110.7333 110.7906	7.7629 8.3403	1.5694	.9447 .9511	.6785 .6555	.2041E-04 .2158E-04	.1403E-01 .1507E-01	1.0669 1.1290	
362.6410	.0032	39.9097	4.9312	111.6811	3.9428	1.7394	9094	.6355	.2291E-04	.1621E-01	1.1941	
372.6410	.0027	46.2738	4.9323	113.6249	9.4925	1.8150	1.0321	.6193	.2443L-04	.1746E-31	1.2544	
382.6410	.0624	53.5741	4.9524	116.8208	9.9227	1.8685	1.0513	.6077	.2615E-04	.1885E-01	1.3008	
392.6410	.0021	62.0617	4.9591	121.4368	10.1722	1.8908	1.1189	.6012	.2811E-04	.2038E-01	1.3254	
402.6410	.0018	72.0666	4.9486	127.6084	10.2174	1.8798	1.2058	.6008	.3033E-04	.2234E-01	1.3252	
405.7690	.0018	75.5718	4.9410	129.8761	10.1919	1.8703	1.23/0	.6019	.3109E-34	.2267E-01	1.3203	
					/R= 5.5000			-		/ ₆ (M	
T	٧	p	h∠RT	а	c _p ∕R	γ	Υe	Z	μ	j4k	N _{Pr}	
196.7958	.2856	.3736	3.4552	112.2608	3.9906	1.1847	1.1657	.9841	.1048E-04	.4210E-02	.9388	
206.7958	.2151	•5194	3.5748	114.4860	4.1007	1.1811	1.1579	. 4605	.1102E-U4	.472CE-32	.9062	
216.7958	.1629	.7157	3.6968	116.5699	4.2229	1.1784	1.1500	.9763	.1156t-04	•5233E-02	.8815	
226.7958 236.7958	.1241 .0951	.9778 1.3242	3.8208 3.9464	118.5013 120.2674	4.3396 4.4577	1.1766 1.1757	1.1420 1.1337	.9712 .9651	.1210E-04 .1263E-04	.5750E-02	.8627 .8483	
246.7958	.0733	1.7780	4.0729	121.8535	4.5780	1.1759	1.1250	.9580	.1317E-04	.6801E-02	.8375	
256.7958	.0568	2.3663	4.1997	123.2443	4.7016	1.1774	1.1127	.9496	.1371E-04	.7339£-02	.8297	
266.7958	.0443	3.1213	4.3261	124.4237	4.8299	1.1802	1.1059	. 4398	.1425E-C4	.7886E-02	.8245	
276.7958	.0347	4.0790	4.4514	125.3789	4.9644	1.1846	1.0955	.9286	.1480E-04	.8447E-JZ	.8218	
286.7958 296.7958	.0274	5.2797 6.7661	4.5747 4.6953	126.1608 126.5870	5.1070	1.1910	1.0844	.9159 .9016	.1536E-04	.9023E-02	•85 †3	
306.7958	.0218 .0174	8.5824	4.8122	126.8457	5.2601 5.4262	1.2108	1.0606	.8857	.1593E-04 .1652E-04	.9617E-02	.8233 .8276	
316.7958	.0141	10.7727	4.9248	126.8991	5.6043	1.2251	1.0484	8685	.1713E-04	.1088E-01	.8345	
326.7958	.0114	13.3792	5.0324	126.7864	5.8096	1.2429	1.0366	.8500	.1776t-04	.1155E-01	.8438	
336.7958	.0094	16.4421	5.1345	126.5673	6.0333	1.2648	1.0256	.8307	.1842E-04	.1226E-01	.8565	
346.7958	.0077	19.9994	5.2306	126.3231	6.2823	1.2910	1.0164	.8109	.1914E-04	.1301E-J1	.8731	
356.7958	.0065	24.0914	5.3205	126.1550	6.5585	1.3219	1.0100	.7911	.1993E-04	.1381E-01	.8939	
366.7958 376.7958	.0054	28.7581 34.0525	5.4041 5.4810	126.1889 126.5624	6.8614 7.1875	1.3571 1.3960	1.0075	.7719 .7538	.2079E-04 .2175E-04	.1467E-01	.9189 .9478	
386.7958	.0039	40.0429	5.5512	127.4241	7.5283	1.4371	1.0195	.7375	.2283E-04	.1657E-01	.9797	
396.7958	.0034	46.8219	5.6141	128.9264	7.8699	1.4779	1.0369	.7236	.2404E-04	.1765E-U1	1.0130	
406.7958	.0029	54.5144	5.6689	131.2192	8.1928	1.5154	1.0638	.7127	.2541E-04	.1682E-01	1.0454	
416.7958	.0026	63.2868	5.7140	134.4447	8.4745	1.5462	1.1013	.7054	.26468-04	.2009E-01	1.0742	
426.7958	.0023	73.3561	5.7476	138.7356	8.6937	1.5673	1.1506	.7021	.2870E-34	.2150E-01	1.0967	
436.7958	.0020	84.9994	5.7664	144.2154	8.8344	1.5771	1.2124	7035	.3067E-04	.2304E-01	1.1107	
446.4401	.0018	98.0447	5.7670	150.7366	8.8895	1.5756	1.2844	.7098	.3279E-04	.2470E-01	1.1151	

TABLE III. - Continued

S/R= 5.3000											
T	٧	p	h/RT	а	c _p /R	γ	Y _e .	Z·	μ	k	N _{Pr}
172.0661	1.3738	.0687	3.1775	100.6458 109.3086	3.6643 3.7969	1.1939	1.1890	. 4958 . 1 948	.9126E-05	.2951E-02 .3452E-32	1.0765
182.0661 192.0661	1.0182 .7593	.0980 .1385	3.2911 3.4035	111.8761	3.9117	1.1821	1.1747	. 7937	.1021E-04	.3953E-02	.9549
202.0661	• >695	.1940	3.5294	114.3492	4.0229	1.1772	1.1682	.9923	.1075L-04	.4456E-02	.9171
212.0661	. 4295	.2695	3.6537	116.7275 119.0087	4.1326	1.1728	1.1518	.9906 .9885	•1129t-04 •11816-04	.4960E-02	.8033 .8061
222.3651 232.0661	• 3257 • 2482	.3714 .5079	3.7310 3.9112	121.1892	4.2410 4.3484	1.1660	1.1497	.9860	.1234E-04	.5973E-UZ	.8486
242.0661	.1901	.6897	4.0439	123.2638	4.4531	1.1635	1.1437	.9831	•1266E-04	.6484t-JZ	.8344
252.0661	.1463	9296	4.1788	125.2259	4.5516	1.1616	1.1376	.9796	.1338E-04	.6997E-J2	.8241
262.0661 272.0661	.1132 .0880	1.2441 1.6531	4.31>5 4.4535	127.0677 125.7601	4.5602 4.7757	1.1604	1.1314 1.1251	.9754 .9705	•1390E-04 •1441E-04	.7515E-02 .8036E-02	.8156 .8J90
282.0661	.0688	2.1806	4.5924	130.3542	4.8846	1.1602	1.1184	9648	•1493£-04	.0568E-02	.8042
292.0661	.0540	2.8552	4.7316	131.7608	4.9958	1.1614	1.1115	.95PZ	1545E-04	.9106E-02	.8009
302.0661	.0426	3.7101 4.7836	4.8706 5.0085	133.0521 134.1629	5.1103 2.2242	1.1637 1.1671	1.1043	.9506 .9420	.1598E-04	.9653E-J2 .1021E-01	.7989 .7984
312.0661 322.J661	.0339 .0270	6.1163	5.1448	135.1120	3.3538	1.1719	1.0890	.9323	.1704E-04	.1679E-J1	.7993
332.0661	.0217	7.7556	5.2788	135.9045	5.4850	1.1783	1.0912	.9215	.1759E-04	.1138E-UI	.8015
342.0661	.0176	9.7495	5.4098	136.5538	2.6263	1.1854	1.0733	.9098 .8971	.1816E-04 .1875E-04	.1149t-01 .1262t-01	.8053 .8106
352.0661 362.0661	.0143 .0118	12.1481 15.0021	5.5371 5.6602	137.0838 137.5307	5.7773 5.9405	1.1964 1.2087	1.0658	. 5537	.1934E-04	.1328E-01	.8172
372.0661	.0097	18.3624	5.7786	137.9444	5.1173	1.2234	1.0532	. 5699	•1497E-04	.1398E-01	.4259
382.0661	.0081	22.2816	5.8920	138.3678	0.3386	1.2435	1.0492	8558	.2065E-04	.1471t-01	.8368
392.0661 402.0661	.0068	26.8103 32.0060	6.0002 6.1328	138.9401 139.6894	6.5146 5.7343	1.2600 1.2618	1.0476 1.0491	.8419 .8236	•2139E-04 •2219E-04	.1548E-61 .1630c-01	.8502 .8659
412.3661	.0049	37.9334	6.1997	140.7332	0.9553	1.3053	1.0546	.6164	.2307E-04	.1718E-G1	.8839
422.0661	.0042	44.6691	6.2907	142.1743	7.2030	1.3299	1.6549	.8356	.2406E-04	.1811E-01	.9037
432.0661 442.0661	.0036 .0032	52.3077 60.9676	6.3753 6.4528	144.1174 146.6663	7.44J8 7.67Ul	1.3546 1.3780	1.0308	.7967 .7901	.2515E-04 .2638E-04	.19126-01 .20216-01	.924 7 .9460
452.3661	.0032	70.7973	6.5221	149.9245	7.8611	1.3989	1.1326	.7864	.2775e-04	.2136E-01	.9063
462.3661	. 0024	81.9819	6.5815	153.9933	0.0635	1.4161	1.1698	.7858	.2929E-04	.2266t-01	. 9840
472.3661	.0022	94.7512	6.6297	158.9660	3.2082	1.4284	1.2155	.7889	•3162E-04	.2406E-01 .2>59E-01	.9996 1.0162
482.0661 489.5909	.0019	109.3869 121.8352	6.567b 6.6722	154.9528 170.1902	a.30±1 ±.±512	1.4353 1.4370	. 1.2701	.7450 .8343	•3294E-04 •3453E-04	.2c85E-01	1.0102
				s	/R= 5.000						
						•		-		1.	NI.
Т	٧	p	h/RT	a	c _p /R	γ	Υ _e	Z	μ	k	N _{Pr}
156.0053	5.2508	•0163	3.0046	a 102 . 2917	c _p /R 3.4907	Y 1.2046	1.2031	•9986,	·8236E-05	.2145E-C2	1.2663
156.0053 166.0053	5.2508 3.8488	.0163 .0237	3.0046 3.1124	a 102.2917 105.1501	c _p /R 3.4907 3.6075	Υ 1.2046 1.1969	1.2031	.9986. .9983	.8236E-05	.2145E-02	1.2663
156.0053 166.0053 176.0053 186.0053	5.2508	•0163	3.0046	a 102 . 2917	c _p /R 3.4907	Y 1.2046	1.2031	.9986. .9983 .9980	·8236E-05	.2145E-C2	1.2663
156.0053 166.0053 176.0053 186.0053 196.0053	5.2508 3.8488 2.8405 2.1097 1.5762	.0163 .0237 .0341 .0485	3.0046 3.1124 3.2243 3.3402 3.4570	102.2917 105.1501 107.9171 110.5985 113.1990	c _p /R 3.4907 3.6075 3.7221 3.8345 3.9448	Y 1.2046 1.1969 1.1900 1.1837 1.1780	1.2031 1.1951 1.1877 1.1809 1.1746	.9986. .9983 .9980 .9975	.8236E-05 .8790E-05 .9339E-05 .9883E-05 .1042E-04	.2145E-02 .2644E-02 .3143E-02 .3643E-02 .41432-02	1.2663 1.1330 1.0447 .9627 .9375
156.0053 166.0053 176.0053 186.0053 196.0053 206.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841	.0163 .0237 .0341 .0485 .0683	3.0046 3.1124 3.2243 3.3402 3.4670 3.5835	a 102.2917 105.1501 107.9171 110.5985 113.1990 115.7219	c _p /R 3.4907 3.6075 3.7221 3.6345 3.9448 4.0530	Y 1.2046 1.1969 1.1900 1.1837 1.1780 1.1729	1.2031 1.1951 1.1877 1.1809 1.1746 1.1687	.9986. .9983 .9980 .9975 .9970	.8236E-05 .8790E-05 .9339E-05 .9883E-05 .1042E-04	.2145E-C2 .2644E-O2 .3143E-O2 .3643E-G2 .4143E-O2 .4643E-U2	1.2663 1.1330 1.0447 .9627 .9375
156.0053 166.0053 176.0053 186.0053 196.0053	5.2508 3.8488 2.8405 2.1097 1.5762	.0163 .0237 .0341 .0485	3.0046 3.1124 3.2243 3.3402 3.4570	102.2917 105.1501 107.9171 110.5985 113.1990	cp/R 3.4907 3.6075 3.7221 3.8345 3.9448 4.0530 4.1592	Y 1.2046 1.1969 1.1900 1.1837 1.1780	1.2031 1.1951 1.1877 1.1809 1.1746	.9986. .9983 .9980 .9975	.8236E-05 .8790E-05 .9339E-05 .9883E-05 .1042E-04 .1696E-04	.2145E-C2 .2644E-O2 .3143E-O2 .3643E-O2 .4143E-O2 .4643E-O2 .5145E-O2	1.2663 1.1330 1.0447 .9627 .9375 .9034 .6772
156.0053 166.0053 176.0053 186.0053 206.0053 216.0053 226.0053 226.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .6788	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825	3.0046 3.1124 3.2243 3.3402 3.4670 3.5835 3.7106 3.6411 3.9749	102.2917 105.1501 107.9171 110.5985 113.1990 115.7219 118.1695 120.5429 122.8422	cp/R 3.4907 3.6075 3.7221 3.8345 3.9448 4.0530 4.1592 4.2636 4.3602	1.2046 1.1969 1.1900 1.1837 1.1780 1.1729 1.1683 1.1641 1.1604	1.2031 1.1951 1.1877 1.1809 1.1746 1.1687 1.1632 1.1579 1.1529	.9986, .9983 .9980 .9975 .9970 .9955 .9955	.6236E-05 .8790E-05 .9339E-05 .9883E-06 .1042E-04 .1046E-04 .1201E-04	.2145E-C2 .2644E-O2 .3643E-O2 .3643E-O2 .4143E-O2 .4643E-U2 .5145E-O2 .5646E-O2	1.2663 1.1330 1.0447 .9627 .9375 .9034 .6772 .6566 .8403
156.0053 166.0053 176.0053 186.0053 196.0053 206.0053 226.0053 226.0053 236.0053 246.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .6788 .5177	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825 .2495	3.0046 3.1124 3.2243 3.3402 3.4600 3.5835 3.7106 3.6411 3.9749 4.1117	102.2917 105.1501 107.9171 110.5985 113.1990 115.7219 118.1695 120.5429 122.84422 125.0656	cp/R 3.4907 3.6075 3.7221 3.8345 3.9448 4.0530 4.1592 4.2636 4.3662 4.4672	1.2046 1.1969 1.1900 1.1837 1.1780 1.1729 1.1683 1.1641 1.1604 1.1572	1.2031 1.1951 1.1877 1.1809 1.1746 1.1687 1.1632 1.1579 1.1529 1.1481	.9986. .9983 .9980 .9975 .9976 .9963 .9955 .9946 .9934	.8236E-05 .8790E-05 .9339E-05 .9883E-05 .1042E-04 .1148E-04 .1201E-04 .1201E-04 .1304E-04	.2145E-C2 .2644E-O2 .3143E-O2 .3643E-O2 .4143E-O2 .4643E-U2 .5145E-O2 .5646E-O2 .6149E-U2	1.2663 1.1330 1.0447 .9627 .9375 .9034 .6772 .6506 .8403
156.0053 166.0053 176.0053 186.0053 206.0053 216.0053 226.0053 226.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .6788	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825 .2495 .3390	3.0046 3.1124 3.2243 3.3402 3.4500 3.5835 3.7106 3.6411 3.9749 4.1117 4.2514	102.2917 105.1501 107.9171 110.5959 113.1990 115.7219 118.1699 120.5429 122.8422 125.0666 127.2144	Cp/R 3.4907 3.6075 3.7221 3.0345 4.0530 4.1592 4.2636 4.3602 4.4672 4.5668	1.2046 1.1969 1.1900 1.1837 1.1780 1.1729 1.1683 1.1641 1.1604 1.1572	1.2031 1.1951 1.1877 1.1809 1.1746 1.1687 1.1632 1.1579 1.1529	.9986, .9983 .9980 .9975 .9970 .9963 .9955 .9946	.8236F-05 .8790t-05 .9339E-05 .9883E-05 .1042E-04 .1046E-04 .1201E-04 .1253E-04 .1314E-04	.2145E-C2 .2644E-O2 .3143E-O2 .3143E-O2 .4143E-O2 .4143E-O2 .5145E-O2 .5145E-O2 .6149E-C2 .6653E-O2	1.2663 1.1330 1.0447 .9627 .9375 .9034 .6772 .6566 .8403 .8272 .8167
156.0053 166.0053 176.0053 186.0053 196.0053 206.0053 226.0053 226.0053 236.0053 256.0053 256.0053 266.0053	5.2508 3.6488 2.8405 2.1097 1.5762 1.1841 .8943 .6788 .5177 .3967 .3053 .2361 .1833	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825 .2495 .2495 .3390 .4575 .6136	3.0046 3.1124 3.2243 3.3402 3.5835 3.7106 3.58411 3.9749 4.1117 4.2514 4.3938 4.5384	a 102.2917 105.1501 107.9171 110.5965 113.1990 115.7219 118.1699 120.5429 122.8422 122.8422 127.2144 129.2829 131.2684	Cp/R 3.4907 3.6075 3.7221 3.0345 4.0530 4.1592 4.2836 4.3602 4.5668 4.6651 4.7025	Y 1.2046 1.1969 1.1960 1.1837 1.1780 1.1729 1.1683 1.1641 1.1572 1.1544 1.1572 1.1544	1.2031 1.1951 1.1877 1.1807 1.1746 1.1632 1.1579 1.1529 1.1529 1.1481 1.1433 1.1433 1.1341	.9986 .9980 .9975 .9970 .9955 .9946 .9934 .9920 .9404 .9884 .9861	.8236E-05 .8790E-05 .9339E-05 .9883E-05 .1042E-04 .1046E-04 .125E-04 .125E-04 .135E-04 .135E-04 .146E-04	.2145E-C2 .2644E-O2 .3143E-O2 .3643E-O2 .4143E-O2 .5145E-O2 .5145E-O2 .6149E-O2 .7159E-O2 .7667E-O2	1.2663 1.1330 1.0447 .9627 .9375 .9034 .6772 .6566 .8403 .8272 .8167 .6061
156.0053 166.0053 176.0053 186.0053 196.0053 206.0053 226.0053 226.0053 246.0053 256.0053 266.0053 276.0053 276.0053 276.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .6788 .5177 .3967 .3053 .2361 .1833	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825 .2495 .3390 .4575 .6136	3.0046 3.1124 3.2243 3.4492 3.4570 3.5835 3.7106 3.6411 3.9749 4.1117 4.2514 4.3938 4.5851	102.2917 105.1501 107.9171 110.5950 113.1950 115.7219 118.1690 120.5429 120.5429 120.5429 121.2684 127.2144 129.2829 131.2684	Cp/R 3.4307 3.6075 3.7221 3.4345 3.9448 4.0530 4.1572 4.2036 4.3602 4.4068 4.6651 4.7025 4.8593	Y 1.2046 1.1969 1.1900 1.1837 1.1729 1.1683 1.1641 1.1604 1.1572 1.1544 1.1520 1.1544 1.1520	1.2031 1.1951 1.1857 1.1809 1.1746 1.1687 1.1579 1.1529 1.1481 1.1341 1.1341 1.1341	.9986 .9980 .9975 .9976 .9976 .9955 .946 .9934 .9920 .9104 .9884 .9861 .9834	- 6236F - 05 - 8790t - 05 - 9339E - 05 - 9883E - 05 - 1042E - 04 - 1148E - 04 - 1201E - 04 - 1352E - 04 - 1352E - 04 - 1352E - 04 - 146E - 04 - 1456E - 04 - 1500E - 04	.2145E-02 .2644E-02 .3143E-02 .3143E-02 .4143E-02 .4143E-02 .5646E-02 .5646E-02 .6149E-02 .6653E-02 .7159E-02 .7159E-02 .7667E-02	1.2663 1.1330 1.0447 .9627 .9037 .9034 .8772 .8266 .8403 .8277 .8001 .8167 .8001 .8167
156.0053 166.0053 176.0053 186.0053 196.0053 206.0053 226.0053 226.0053 236.0053 256.0053 276.0053 276.0053 276.0053 276.0053 276.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .6788 .5177 .3967 .32361 .1833 .1430	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825 .2495 .2495 .3390 .4575 .6136 .8180	3.0046 3.1124 3.2243 3.3492 3.4600 3.5835 3.7106 3.6411 3.9749 4.1117 4.2514 4.2514 4.0851 4.0335	a 102.2917 105.1501 107.9171 110.5985 113.1990 115.7219 120.5429 122.8422 125.0656 127.2144 129.2829 131.2684 133.1664 134.9736	Cp/R 3.4907 3.6075 3.7221 3.0345 4.0530 4.1592 4.2636 4.3602 4.5668 4.66651 4.7625 4.8593 4.9508	Y 1.2046 1.1969 1.1900 1.1837 1.1780 1.1683 1.1641 1.1572 1.15520 1.1520 1.1486 1.1477	1.2031 1.1951 1.1877 1.1809 1.1746 1.1687 1.1632 1.1579 1.1529 1.1481 1.1433 1.1433 1.1431 1.1294	.9986 .9980 .9975 .9975 .9975 .9955 .9946 .9934 .9920 .9946 .9884 .9861 .9861	. 6236E - 05 . 6790E - 05 . 9339E - 05 . 9883E - 05 . 1042E - 04 . 1096E - 04 . 1201E - 04 . 1253E - 04 . 1355E - 04 . 1456E - 04 . 1556E - 04 . 1556E - 04	.2145E-02 .2644E-02 .3143E-02 .3143E-02 .4143E-02 .5145E-02 .5646E-02 .6149E-02 .6653E-02 .7159E-02 .7667E-02 .8177E-02 .8691E-02	1.2563 1.1330 1.0447 .9627 .9375 .9034 .8706 .8403 .8272 .8167 .8011 .8012 .7912
156.0053 166.0053 176.0053 186.0053 196.0053 226.0053 226.0053 236.0053 236.0053 256.0053 276.0053 276.0053 276.0053 276.0053 276.0053 276.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .6788 .5177 .3967 .3053 .1430 .1120 .0881	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825 .2495 .3390 .4575 .6136 .6180 1.0838 1.4273 1.8681	3.0046 3.1124 3.2243 3.3492 3.4502 3.5835 3.7106 3.5411 74.2514 4.2514 4.2514 4.0835 4.0835 4.0835 5.1338	102.2917 105.1501 107.9171 110.5950 113.1990 115.7219 118.1690 120.5429 120.5429 120.5429 121.2684 127.2144 129.2829 131.2684 133.1669 134.9736 136.6830 136.6830 138.2917	Cp/R 3.4307 3.6075 3.7221 3.4345 4.0530 4.1592 4.2036 4.3602 4.4072 4.5068 4.6651 4.7025 4.4593	Y 1.2046 1.1969 1.1900 1.1837 1.1729 1.1683 1.1641 1.1604 1.1572 1.1544 1.1520 1.1520 1.1541 1.1473 1.1473	1.2031 1.1951 1.1877 1.1809 1.1746 1.1632 1.1579 1.1529 1.1433 1.1433 1.1341 1.1294 1.1247 1.1247	.9986 .9980 .9980 .9975 .9976 .9955 .9946 .9934 .9920 .9946 .9884 .9861 .9884 .9862 .9765 .9762	- 6236E - 05 - 8790t - 05 - 9339E - 05 - 9883E - 05 - 1042E - 04 - 1076E - 04 - 1201E - 04 - 1253E - 04 - 1355E - 04 - 1355E - 04 - 1456E - 04 - 1556E - 04 - 1656E - 04	.2145E-02 .2643E-02 .3143E-02 .3143E-02 .4143E-02 .5646E-02 .5646E-02 .6149E-02 .7159E-02 .7159E-02 .7159E-02 .8691E-02 .8691E-02 .8691E-02	1.2663 1.1330 1.0447 .9627 .9375 .90375 .6072 .6566 .8403 .8272 .8167 .8167 .8167 .8167 .7912 .7912 .7877
156.0053 166.0053 176.0053 186.0053 196.0053 206.0053 226.0053 226.0053 236.0053 256.0053 256.0053 266.0053 276.0053 276.0053 276.0053 276.0053 276.0053 276.0053 276.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 6.788 5.177 3.3053 .3361 .1833 .1430 .0881 .0697	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825 .2495 .2495 .6136 .6136 .6136 .6136 .8180	3.0046 3.1124 3.2243 3.3492 3.4500 3.5835 3.7106 3.6411 3.9749 4.1117 4.2514 4.0851 4.0851 4.0835 4.0832 5.2848	a 102.2917 105.1501 107.9171 110.5990 115.7219 118.1699 120.5429 122.8422 122.8422 122.8422 133.1666 133.1669 133.1669 133.1669 136.683 136.683 136.2917 139.7941	Cp/R 3.9307 3.6375 3.7221 3.0345 4.0530 4.1592 4.2636 4.3602 4.5668 4.6651 4.7025 4.8593 5.0025 5.1499 5.2485	Y 1.2046 1.1969 1.1900 1.1780 1.1729 1.1683 1.1641 1.1604 1.1572 1.1544 1.1572 1.1544 1.1501 1.1477 1.1473 1.1473 1.1474	1.2031 1.1951 1.1877 1.1809 1.1746 1.1687 1.1632 1.1579 1.129 1.1481 1.1433 1.1433 1.1341 1.1247 1.1247 1.1247 1.1251 1.1151	.9986 .9983 .9980 .9975 .9976 .9946 .9955 .9946 .9920 .9904 .9861 .9861 .9862 .9765 .9765 .9765	.8236E-05 .8790E-05 .9339E-05 .9883E-05 .1042E-04 .124E-04 .1253E-04 .1253E-04 .1355E-04 .1456E-04 .156E-04 .156E-04 .156E-04 .166E-04 .166E-04	.2145E-02 .2644E-02 .3644E-02 .3643E-02 .4143E-02 .5145E-02 .5646E-02 .6149E-02 .7159E-02 .7667E-02 .8691E-02 .9238E-02 .9730E-02 .1026E-01	1.2663 1.1330 1.0427 .9427 .9375 .9034 .8772 .8350 .8477 .8167 .8167 .8167 .8167 .7912 .7957 .7877 .7853
156.0053 166.0053 176.0053 186.0053 196.0053 206.0053 226.0053 226.0053 226.0053 226.0053 226.0053 226.0053 226.0053 226.0053 226.0053 236.0053 236.0053 236.0053 236.0053 236.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 8943 6788 55177 .3967 .2361 .1833 .1430 .1120 .0881 .0697 .0553	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825 .2495 .3390 .4575 .6136 .8180 1.0838 1.4273 1.8681 2.4298 3.1403 4.0323	3.0046 3.1124 3.2243 3.3402 3.5835 3.7106 3.5835 3.5411 3.9749 4.2514 4.2514 4.3938 4.5835 5.2838 5.2838 5.2838 5.2838	2.2917 105.1501 107.9171 110.5985 113.1990 115.7219 118.1699 120.5429 122.8422 125.0666 127.2144 129.2829 131.2884 133.1669 134.9736 136.6835 136.6835 136.6835 136.7941 141.1876	Cp/R 3.4075 3.6075 3.7221 3.6345 4.0530 4.1592 4.2636 4.3662 4.6651 4.7025 4.8593 4.7025 7.1499 7.2485	Y 1.2046 1.1969 1.1900 1.1837 1.1780 1.1729 1.1683 1.1641 1.1604 1.1572 1.1574 1.1501 1.1501 1.1486 1.1473 1.1473 1.1475	1.2031 1.1951 1.1877 1.1809 1.1746 1.1632 1.1579 1.1529 1.1481 1.1433 1.1347 1.1247 1.1247 1.1259 1.1251 1.1251	.9986. .9983. .9980. .9975. .9976. .9946. .9934. .9920. .9944. .9861. .9884. .9862. .9765. .9765. .9765.	- 6236E - 05 - 8790t - 05 - 9339E - 05 - 9883E - 05 - 1042E - 04 - 1046E - 04 - 1201E - 04 - 1202E - 04 - 1304E - 04 - 1305E - 04 - 1456E - 04 - 1506E - 04 - 1606E - 04 - 1756E - 04 - 1756E - 04 - 1756E - 04	.2145E-02 .2644E-02 .3143E-02 .3643E-02 .4143E-02 .5646E-02 .5646E-02 .6149E-02 .7159E-02 .7159E-02 .7159E-02 .8691E-02 .9238E-02 .9238E-02 .1026E-01 .1079E-01	1.2663 1.1330 1.0447 .9447 .9375 .9034 .8772 .8786 .8403 .8477 .8061 .8167 .8167 .7912 .7916 .7917 .7852 .7832
156.0053 166.0053 176.0053 186.0053 196.0053 206.0053 226.0053 226.0053 236.0053 256.0053 256.0053 276.0053 276.0053 276.0053 276.0053 276.0053 276.0053 276.0053 276.0053 276.0053 276.0053 276.0053 276.0053 276.0053 276.0053 276.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 6.788 5.177 3.3053 .3361 .1833 .1430 .0881 .0697	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825 .2495 .3390 .4575 .6136 .8180 1.0838 1.4273 1.8681 2.4298 3.1403 4.0323 5.1429	3.0046 3.1124 3.2243 3.3492 3.4500 3.5835 3.7106 3.6411 3.9749 4.1117 4.2514 4.0851 4.0851 4.0835 4.0832 5.2848	a 102.2917 105.1501 107.9171 110.5990 115.7219 118.1699 120.5429 122.8422 122.8422 122.8422 133.1666 133.1669 133.1669 133.1669 136.683 136.683 136.2917 139.7941	Cp/R 3.9307 3.6375 3.7221 3.0345 4.0530 4.1592 4.2636 4.3602 4.5668 4.6651 4.7025 4.8593 5.0025 5.1499 5.2485	Y 1.2046 1.1969 1.1900 1.1780 1.1729 1.1683 1.1641 1.1604 1.1572 1.1544 1.1572 1.1544 1.1501 1.1477 1.1473 1.1473 1.1474	1.2031 1.1951 1.1877 1.1809 1.1746 1.1687 1.1632 1.1579 1.129 1.1481 1.1433 1.1433 1.1341 1.1247 1.1247 1.1247 1.1251 1.1151	.9986 .9983 .9980 .9975 .9976 .9946 .9955 .9946 .9920 .9904 .9861 .9861 .9862 .9765 .9765 .9765	.8236E-05 .8790E-05 .9339E-05 .9883E-05 .1042E-04 .124E-04 .1253E-04 .1253E-04 .1355E-04 .1456E-04 .156E-04 .156E-04 .156E-04 .166E-04 .166E-04	.2145E-02 .2644E-02 .3644E-02 .3643E-02 .4143E-02 .5145E-02 .5646E-02 .6149E-02 .7159E-02 .7667E-02 .8691E-02 .9238E-02 .9730E-02 .1026E-01	1.2663 1.1330 1.0427 .9427 .9375 .9034 .8772 .8350 .8477 .8167 .8167 .8167 .8167 .7912 .7957 .7877 .7853
156.0053 166.0053 176.0053 186.0053 196.0053 226.0053 226.0053 226.0053 236.0053 256.0053 256.0053 266.0053 266.0053 266.0053 326.0053 326.0053 326.0053 326.0053 326.0053 326.0053 326.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .67187 .3967 .3053 .1430 .1120 .0881 .0452 .0354 .0256	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825 .2495 .3390 .6136 .8180 1.4273 1.8681 2.4298 3.1403 3.1403 4.0323 5.1429 6.5141 8.1919	3.0046 3.1124 3.2243 3.3492 3.4902 3.5835 3.7106 3.5841 1.117 4.2514 4.2514 4.6851 4.6851 4.6855 5.1338 5.2848 5.5861 5.7352	2.2917 105.1501 107.9171 110.5955 115.7219 118.1699 120.5429 120.5429 122.8422 125.0666 127.2144 129.2829 131.2684 133.1669 134.9736 136.2917 139.7941 141.1876 142.4727 143.6516 144.7326	Cp/R 3.4075 3.6075 3.7221 3.6345 4.0530 4.1572 4.2666 4.3602 4.6651 4.7625 4.5668 4.6651 4.7025 5.1499 5.2485 5.1493 5.45280 5.720	Y 1.2046 1.1969 1.1900 1.1837 1.1780 1.1729 1.1681 1.1641 1.1507 1.1574 1.1574 1.1590 1.1486 1.1473 1.1473 1.1475 1.1486 1.1473 1.1475 1.1486	1.2031 1.1951 1.1877 1.1809 1.1746 1.1632 1.1579 1.1529 1.1433 1.1347 1.1347 1.1294 1.1294 1.1294 1.1205 1.1050 1.0999 1.0947 1.08897	.9986 .9980 .9975 .9976 .9946 .9955 .9946 .9934 .9861 .9861 .9862 .9765 .9772 .9673 .9617 .9554 .9468	**B236F-05 **B790t-05 **9339E-05 **9883E-05 **1042E-04 **1148E-04 **1201E-04 **1253E-04 **1355E-04 **1355E-04 **1506E-04 **1506E-04 **1756E-04	.2145E-02 .2644E-02 .3143E-02 .3143E-02 .4143E-02 .4143E-02 .5146E-02 .5146E-02 .6149E-02 .7159E-02 .7159E-02 .7159E-02 .9238E-02 .9730E-02 .1026E-01 .1079E-01 .1134E-01 .1246E-01	1.2663 1.1330 1.0427 .9427 .9375 .9034 .8472 .8403 .8472 .8101 .8403 .8472 .7912 .7912 .7912 .7852 .7835 .7835 .7835 .7835
156.0053 166.0053 176.0053 186.0053 196.0053 226.0053 226.0053 236.0053 236.0053 256.0053 256.0053 266.0053 276.0053 326.0053 326.0053 326.0053 326.0053 336.0053 336.0053 336.0053 336.0053 346.0053 356.0053 356.0053 356.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .6788 .5177 .3053 .1430 .0881 .0697 .0553 .0442 .0286 .0232 .0189	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825 .2495 .2495 .6136 .8180 1.0838 1.4273 1.8681 2.4298 3.1403 4.0323 5.1429 6.5141 8.1919	3.0046 3.1124 3.2243 3.3492 3.4500 3.5835 3.7106 3.5411 3.9719 4.2514 4.0851 4.0851 4.0851 4.08335 4.08338 5.4338 5.4338 5.4358 5.43661 5.7352 5.8274	a 102.2917 105.1501 107.9171 110.5985 113.1990 115.7219 120.5429 122.8429 122.8429 122.8429 133.1666 127.2144 129.2829 131.2684 133.1666 133.1669 134.683 136.683 136.683 136.683 136.683 137.2794 141.1876 144.7326 144.7326 144.7326	Cp/R 3.4907 3.6075 3.7221 3.0345 4.0530 4.1592 4.2636 4.3602 4.5668 4.6651 4.6725 4.6593 5.0525 5.1499 5.2485 5.1499 5.2485 5.1499 5.2485	Y 1.2046 1.1969 1.1900 1.1780 1.1729 1.1683 1.1641 1.1572 1.1520 1.1540 1.1547 1.1477 1.1477 1.1475 1.1484 1.1500 1.1525	1.2031 1.1951 1.1879 1.1809 1.1746 1.1687 1.1682 1.1529 1.1529 1.1481 1.1433 1.1294 1.1247 1.1247 1.1251 1.1050 1.0999 1.0947 1.0949	.9986 .9983 .9980 .9975 .9976 .9946 .9955 .9946 .9920 .9904 .9861 .9861 .9862 .9765	*8236E - 05 *8790E - 05 *9339E - 05 *9883E - 05 *1042E - 04 *126E - 04 *120E - 04 *120E - 04 *130E - 04 *1406E - 04 *1506E - 04 *1606E - 04 *1606E - 04 *1606E - 04 *1706E - 04 *1807E - 04 *1807E - 04 *1807E - 04 *1807E - 04 *1807E - 04 *1807E - 04 *1905E - 04 *1905E - 04	.2145E-G2 .2644E-G2 .3143E-G2 .3143E-G2 .4143E-W2 .5145E-W2 .5145E-W2 .5145E-W2 .6653E-W2 .7159E-W2 .7159E-W2 .8191E-W2 .923BE-W2 .9730E-W2 .1026E-W1 .1079E-W1 .1134E-W1 .1134E-O1 .1246E-G1	1.2663 1.1330 1.04427 .94427 .9375 .90342 .84503 .8
156.0053 166.0053 176.0053 186.0053 196.0053 226.0053 226.0053 226.0053 236.0053 256.0053 276.0053 276.0053 286.0053 286.0053 326.0053 326.0053 326.0053 326.0053 336.0053 336.0053 336.0053 356.0053 356.0053 356.0053 376.0053 376.0053 376.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .67187 .3967 .3053 .1120 .0881 .0881 .0120 .0897 .0553 .0454 .0286 .0286 .0155	.0163 .C237 .0341 .0485 .0485 .0485 .0955 .1325 .1825 .2495 .3390 .4575 .6136 .8180 1.4273 1.8681 2.4298 3.1429 6.5141 8.1919 10.2264 12.6704 15.5794	3.0046 3.1124 3.2243 3.3492 3.4902 3.5835 3.7106 3.5841 1.117 4.2514 4.2514 4.6851 4.6851 4.6855 5.1338 5.2848 5.5861 5.7352	2.2917 105.1501 107.9171 110.5955 115.7219 118.1699 120.5429 120.5429 122.8422 125.0666 127.2144 129.2829 131.2684 133.1669 134.9736 136.2917 139.7941 141.1876 142.4727 143.6516 144.7326	Cp/R 3.4075 3.6075 3.7221 3.6345 4.0530 4.1572 4.2666 4.3602 4.6651 4.7625 4.5668 4.6651 4.7025 5.1499 5.2485 5.1493 5.45280 5.720	Y 1.2046 1.1969 1.1900 1.1837 1.1780 1.1729 1.1681 1.1641 1.1507 1.1574 1.1574 1.1590 1.1486 1.1473 1.1473 1.1475 1.1486 1.1473 1.1475 1.1486	1.2031 1.1951 1.1879 1.1809 1.1746 1.1632 1.1579 1.1529 1.1481 1.14337 1.1347 1.1247 1.1251 1.1050 1.0999 1.0947 1.0949 1.0949 1.0949	.9986 .9980 .9975 .9976 .9946 .9955 .9946 .9934 .9861 .9861 .9862 .9765 .9772 .9673 .9617 .9554 .9468	*8236E - 05 *8790t - 05 *9339E - 05 *988E - 05 *1042E - 04 *120E - 04 *120E - 04 *135E - 04 *135E - 04 *135E - 04 *1456E - 04 *156E - 04 *156E - 04 *166E - 04 *176E	.2145E-02 .2644E-02 .3143E-02 .3143E-02 .4143E-02 .4143E-02 .5146E-02 .5146E-02 .6149E-02 .7159E-02 .7159E-02 .7159E-02 .9238E-02 .9730E-02 .1026E-01 .1079E-01 .1134E-01 .1246E-01	1.2663 1.1330 1.0427 .9427 .9375 .9034 .8472 .8403 .8472 .8101 .8403 .8472 .7912 .7912 .7912 .7852 .7835 .7835 .7835 .7835
156.0053 166.0053 176.0053 186.0053 196.0053 226.0053 226.0053 236.0053 236.0053 256.0053 276.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 2.5177 3.967 3.3063 1.1833 1.1430 0.881 0.0897 0.0553 0.0454 0.0286 0.0286 0.0189 0.0155 0.0128	.0163 .C237 .0341 .0485 .0683 .9355 .1325 .1325 .2495 .2495 .6180 .6180 1.0838 1.4273 1.8681 2.4298 3.1403 4.0323 5.1429 6.5141 8.1919 10.2264 12.6704 15.5794	3.0046 3.1124 3.2243 3.4402 3.4500 3.5835 3.7106 3.6411 3.9719 4.2514 4.0851 4.9832 5.13838 4.9832 5.13838 5.49836 5.7355 6.0274 6.1695 6.3085	2.2917 105.1501 107.9171 110.5990 115.7219 118.1699 120.5429 122.8422 122.8422 122.8422 133.1669 133.1669 133.1669 134.2684 133.1669 134.2684 134.2684 134.2684 135.1669 136.683 138.291 141.1876 144.7326 145.4727 143.6516 144.73294 146.66632 146.6632 147.5632	Cp/R 3.4907 3.6075 3.7221 3.0345 4.0530 4.1592 4.2636 4.3602 4.5668 4.6651 4.7025 4.8793 5.4528 5.0129 5.71499 5.1499 6.1863	Y 1.2046 1.1969 1.1900 1.1837 1.1729 1.1683 1.1641 1.1604 1.1542 1.1544 1.1525 1.1477 1.1477 1.1473 1.1473 1.1473 1.1473 1.1473 1.1473 1.1525	1.2031 1.1951 1.1879 1.1809 1.1746 1.1682 1.1529 1.1529 1.1481 1.1433 1.1247 1.1247 1.1247 1.1251 1.1050 1.0999 1.0947 1.0849 1.	.9986 .9983 .9980 .9975 .9976 .9946 .9955 .9946 .9920 .9946 .9861 .9861 .9862 .9765	*8236E - 05 *8790E - 05 *9839E - 05 *9883E - 05 *1042E - 04 *124E - 04 *1253E - 04 *1355E - 04 *1456E - 04 *1556E - 04 *156E - 04 *166E - 04 *1766E - 04 *1807E - 04 *1807E - 04 *1807E - 04 *1807E - 04 *1807E - 04 *1807E - 04 *1915E - 04 *1915E - 04 *2077E - 04 *2077E - 04 *2136E - 04	.2145E-02 .2644E-02 .3143E-02 .3643E-02 .4143E-02 .5145E-02 .5145E-02 .5145E-02 .7159E-02 .7159E-02 .7159E-02 .717E-02 .8177E-02 .8177E-02 .923BE-02 .923BE-02 .1026E-01 .1079E-01 .1189E-01 .1189E-01 .1184E-01 .1246E-01 .1304E-01 .1304E-01	1.2663 1.1330 1.04477 .94477 .9375 .90342 .84503 .84503 .84504 .8
156.0053 166.0053 176.0053 186.0053 196.0053 206.0053 226.0053 226.0053 226.0053 226.0053 226.0053 226.0053 226.0053 236.0053 236.0053 326.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .6717 .3967 .3053 .2361 .1833 .1430 .1120 .0881 .0697 .0553 .0442 .0354 .0286 .0286 .0189 .0155 .0128 .01089	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825 .2495 .3390 .4575 .6136 .8180 1.4273 1.8681 2.4298 3.1403 3.1403 4.0323 5.1429 6.5141 8.1919 10.264 12.5794 12.5794 12.5794 12.5794 12.5794 12.5794 12.0239	3.0046 3.1124 3.2243 3.4402 3.4400 3.5835 3.7106 3.6411 3.9749 4.1117 4.2538 4.08851 4.0835 5.2848 5.2848 5.2848 5.2848 6.6666 6.60675 6.3082	2.2917 102.2917 105.1501 107.9171 110.5985 115.7219 118.1699 120.5429 122.8422 125.0666 127.2144 129.2829 131.2884 133.1669 134.9683 136.2917 139.7941 141.1876 142.4727 143.6517 144.4732 145.6632 145.6632 145.6632 147.5637 148.4622	Cp/R 3.4075 3.6075 3.7221 3.6345 4.0530 4.1592 4.2666 4.3662 4.6672 4.5668 4.6651 4.7025 4.8593 4.7028 5.1499 5.2485 5.01493 5.4528 5.01499 6.1863 6.3327	Y 1.2046 1.1969 1.1900 1.1780 1.1780 1.1683 1.1641 1.1604 1.1572 1.1544 1.1550 1.1544 1.1501 1.1473 1.1473 1.1473 1.1473 1.1473 1.1529 1.1529 1.1664 1.1731 1.1731	1.2031 1.1951 1.1877 1.1809 1.1746 1.1632 1.1579 1.1529 1.1433 1.1347 1.1294 1.1294 1.1294 1.1291 1.1050 1.0999 1.0947 1.0949 1.	.9986 .9980 .9975 .9976 .9946 .9934 .9959 .9934 .9861 .9884 .9862 .9765 .9765 .9772 .965 .9765	**B236F - 05 **B790E - 05 **9339E - 05 **9883E - 05 **1042E - 04 **1201E - 04 **1203E - 04 **1305E - 04 **1305E - 04 **1506E - 04 **2150E - 04 **2150E - 04 **2150E - 04 **2150E - 04	.2145E-02 .2644E-02 .3143E-02 .3143E-02 .4143E-02 .5145E-02 .5646E-02 .6149E-02 .7159E-02 .7159E-02 .7159E-02 .9238E-02 .9238E-02 .9238E-02 .1026E-01 .1079E-01 .1134E-01 .1246E-01 .1364E-01 .1426E-01 .1426E-01 .1426E-01	1.2663 1.1330 1.0427 .9427 .9375 .9034 .8472 .8403 .8472 .8101 .8712 .7912 .7912 .7852 .7852 .7835 .7835 .7876 .7896 .78
156.0053 166.0053 176.0053 196.0053 206.0053 216.0053 226.0053 226.0053 226.0053 226.0053 226.0053 226.0053 236.0053 236.0053 326.0053 326.0053 326.0053 326.0053 326.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 8943 6788 55177 .3967 .3053 .1430 .1120 .0881 .0697 .0553 .0442 .0354 .0286 .0232 .0189 .0155 .0128 .0106	.0163 .C237 .0341 .0485 .0683 .0955 .1325 .1825 .2495 .3390 .6136 .6180 1.0838 1.4273 1.8681 2.4298 3.1403 4.0323 5.1429 6.5141 8.1919 10.264 12.6704 15.5794 19.00023 27.6781	3.0046 3.1124 3.2243 3.4402 3.4500 3.5835 3.7106 3.6411 3.9719 4.2514 4.0851 4.9832 5.13838 4.9832 5.13838 5.49836 5.7355 6.0274 6.1695 6.3085	2.2917 105.1501 107.9171 110.5990 115.7219 118.1699 120.5429 122.8422 122.8422 122.8422 133.1669 133.1669 133.1669 134.2684 133.1669 134.2684 134.2684 134.2684 135.1669 136.683 138.291 141.1876 144.7326 145.4727 143.6516 144.73294 146.66632 146.6632 147.5632	Cp/R 3.4907 3.6075 3.7221 3.0345 4.0530 4.1592 4.2636 4.3602 4.5668 4.6651 4.7025 4.8793 5.4528 5.0129 5.71499 5.1499 6.1863	Y 1.2046 1.1969 1.1900 1.1837 1.1683 1.1641 1.1604 1.1572 1.1544 1.1520 1.1544 1.1520 1.1475 1.1473 1.1473 1.1473 1.1473 1.1549 1.1559 1.1664 1.1559 1.1664 1.1731 1.1816	1.2031 1.1951 1.1877 1.1809 1.1746 1.1632 1.1579 1.1529 1.1481 1.1433 1.1307 1.1247 1.1247 1.1250 1.1151 1.1050 1.0999 1.0847 1.0849 1.0849 1.0849 1.0849 1.0849 1.0770 1.0745 1.0775	.9986 .9983 .9980 .9975 .9976 .9946 .9955 .9946 .9920 .9946 .9861 .9861 .9862 .9765	*8236E - 05 *8790E - 05 *9839E - 05 *9883E - 05 *1042E - 04 *124E - 04 *1253E - 04 *1355E - 04 *1456E - 04 *1556E - 04 *156E - 04 *166E - 04 *1766E - 04 *1807E - 04 *1807E - 04 *1807E - 04 *1807E - 04 *1807E - 04 *1807E - 04 *1915E - 04 *1915E - 04 *2077E - 04 *2077E - 04 *2136E - 04	.2145E-02 .2644E-02 .3143E-02 .3643E-02 .4143E-02 .5145E-02 .5145E-02 .5145E-02 .7159E-02 .7159E-02 .7159E-02 .717E-02 .8177E-02 .8177E-02 .923BE-02 .923BE-02 .1026E-01 .1079E-01 .1189E-01 .1189E-01 .1184E-01 .1246E-01 .1304E-01 .1304E-01	1.2663 1.1330 1.04477 .94477 .9375 .90342 .84503 .8277 .84503 .8277 .7877 .7835 .7835 .7877 .7835 .7879 .7816 .8087 .8087 .8087
156.0053 166.0053 176.0053 186.0053 196.0053 226.0053 226.0053 226.0053 226.0053 226.0053 226.0053 226.0053 226.0053 236.0053 326.0053 326.0053 326.0053 326.0053 326.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053 346.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .67187 .3967 .3053 .1433 .1120 .0881 .0452 .0252 .0169 .0252 .0169 .0255 .0069 .0075	. 0163 . C237 . 0341 . 0485 . 0683 . 0955 . 1825 . 1825 . 2495 . 3390 . 6136 . 6136 . 6136 . 14273 1.8681 2.4298 3.1429 6.5141 8.1919 10.2264 12.6704 12.6704 12.6704 12.6704 13.0339 27.6781 33.0339 27.6781	3.0046 3.1124 3.2243 3.4402 3.4500 3.5835 3.64117 4.2514 4.1117 4.2514 4.6835 4.9832 5.2848 5.4385 5.2848 5.43861 5.7352 6.0274 6.1692 6.4431 6.7003 6.8236	102.2917 105.1501 107.9171 110.5985 113.1990 115.7219 118.7695 120.5429 122.8422 123.2684 127.2144 129.2829 131.2684 133.1664 133.1664 137.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 144.7326 145.7294 146.6637 148.4692 149.4920 151.7286 153.2036	Cp/R 3.4907 3.6075 3.7221 3.0345 4.0530 4.1592 4.2636 4.36621 4.6668 4.66651 4.6725 4.8593 5.0925 5.1499 5.2485 5.1499 5.2485 5.1499 5.2485 5.1499 5.2485 5.1499 5.2485 5.1499 5.2485 5.1499 5.2485 5.1493 5.3507 6.1853 6.3537 6.4939 6.18537 6.4939 6.85339	Y 1.2046 1.1969 1.1969 1.1780 1.1780 1.1683 1.1641 1.1672 1.1520 1.1520 1.1487 1.1477 1.1475 1.1475 1.1475 1.1475 1.1525	1.2031 1.1951 1.1877 1.1809 1.1746 1.1632 1.1579 1.1529 1.1481 1.1433 1.1247 1.1247 1.1251 1.1050 1.0999 1.0947 1.0948 1.	.9986 .9980 .9975 .9976 .9976 .9946 .9934 .9959 .9944 .9861 .9861 .9861 .9862 .9765 .97722 .9073 .9017 .9554 .9468	**B236E - 05 **B790E - 05 **B790E - 05 **9339E - 05 **9883E - 05 **1042E - 04 **1148E - 04 **1201E - 04 **1253E - 04 **1355E - 04 **1556E - 04 **1556E - 04 **1756E - 04 **2136E - 04	.2145E-02 .2644E-02 .3143E-02 .3143E-02 .4143E-02 .5145E-02 .5646E-02 .5646E-02 .7159E-02 .7159E-02 .7159E-02 .7159E-02 .7159E-02 .1026E-01 .1079E-01 .11364E-01 .1246E-01 .1364E-01 .1364E-01 .1426E-01 .1576E-01 .1576E-01 .1776E-01 .1776E-01	1.2663 1.1330 1.1330 1.04477 .9375 .90372 .8275 .8275 .8275 .8276 .8276 .8276 .8276 .8276 .8276 .8276 .8336 .8276 .7835 .7835 .7835 .7835 .7896 .80187 .8018
156.0053 166.0053 176.0053 186.0053 196.0053 226.0053 226.0053 226.0053 236.0053 236.0053 236.0053 236.0053 236.0053 236.0053 236.0053 336.0053 336.0053 336.0053 346.0053	5.2508 3.8488 2.84097 1.5762 1.1841 2.1097 1.5762 1.1841 2.1097 2	. 0163 . C237 . 0347 . 00485 . 0683 . 9355 . 1325 . 1325 . 1325 . 2495 . 2495 . 6180 1. C838 1. 4273 1. 8681 2. 4298 3. 1403 4. 0323 5. 1429 6. 5141 8. 1919 10. 2264 12. 6704 15. 6704	3.0046 3.1124 3.2243 3.4402 3.4500 3.5835 3.7106 3.6411 3.9719 4.2514 4.0851 4.9832 5.13384 4.0835 4.9832 5.13386 5.7352 5.88274 6.1695 6.90389 6.8229 7.0508	2.2917 105.1501 107.9171 110.5989 113.1990 115.7219 128.422 128.422 128.422 128.422 133.1664 133.1664 133.1669 134.1669 137.2144 129.2824 133.1669 134.1669 134.1669 134.1669 134.1669 134.1669 134.1669 134.1669 134.1669 134.1669 134.1669 134.1669 134.1876 144.7329 144.7329 145.6632 147.5632 147.5632 147.5632 148.4692 151.7286 153.2036	Cp/R 3.4907 3.6075 3.7221 3.0345 4.0530 4.1592 4.2636 4.3602 4.5666 4.6651 4.6725 4.8593 5.4528 5.0525 5.1499 5.2445 5.3473 5.4528 5.7520 5.7725 6.8339 6.1063 6.8339 7.0120	Y 1.2046 1.1969 1.1900 1.1837 1.1683 1.1641 1.1604 1.1572 1.1544 1.15201 1.1484 1.1473 1.1473 1.1473 1.1473 1.1473 1.1599 1.1664 1.1599 1.1666 1.1731 1.1816 1.1915 1.2019 1.2019 1.2019 1.2019 1.2019 1.2019 1.2019 1.2019	1.2031 1.1951 1.1879 1.1809 1.1746 1.1682 1.1529 1.1529 1.1481 1.1433 1.1247 1.1247 1.1251 1.1050 1.0999 1.0947 1.0849 1.0949 1.	.9986 .9983 .9980 .9975 .9976 .9946 .9934 .9920 .9946 .9861 .9861 .9861 .9862 .9765 .9765 .9765 .9765 .9765 .9765 .9765 .9765 .9765 .9765 .9765 .9863 .9866	**B236E - 05 **B790E - 05 **9839E - 05 **9883E - 05 **1042E - 04 **1046E - 04 **1201E - 04 **1305E - 04 **1305E - 04 **1506E - 04 **2506E - 04	.2145E-02 .2644E-02 .3143E-02 .3643E-02 .4143E-02 .5145E-02 .5145E-02 .5145E-02 .7159E-02 .7159E-02 .7159E-02 .7159E-02 .717E-01 .1079E-01 .1079E-01 .1134E-01 .1134E-01 .1246E-01 .1246E-01 .1562FE-01 .1576E-01 .170E-01 .170E-01	1.2630 1.1330 1.04477 .94477 .9375 .90342 .84503 .8
156.0053 166.0053 176.0053 186.0053 196.0053 226.0053 226.0053 226.0053 236.0053 256.0053 276.0053 286.0053 286.0053 326.0053 326.0053 326.0053 326.0053 326.0053 326.0053 326.0053 346.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .67187 .3967 .3053 .1433 .1120 .0881 .0452 .0252 .0169 .0252 .0169 .0255 .0069 .0075	. 0163 . C237 . 0341 . 0485 . 0683 . 0955 . 1825 . 1825 . 2495 . 3390 . 6136 . 6136 . 6136 . 14273 1.8681 2.4298 3.1429 6.5141 8.1919 10.2264 12.6704 12.6704 12.6704 12.6704 13.0339 27.6781 33.0339 27.6781	3.0046 3.1124 3.2243 3.4402 3.4500 3.5835 3.64117 4.2514 4.1117 4.2514 4.6835 4.9832 5.2848 5.4385 5.2848 5.43861 5.7352 6.0274 6.1692 6.4431 6.7003 6.8236	102.2917 105.1501 107.9171 110.5985 113.1990 115.7219 118.7695 120.5429 122.8422 123.2684 127.2144 129.2829 131.2684 133.1664 133.1664 137.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 134.2684 144.7326 145.7294 146.6637 148.4692 149.4920 151.7286 153.2036	Cp/R 3.4907 3.6075 3.7221 3.0345 4.0530 4.1592 4.2636 4.36621 4.6668 4.66651 4.6725 4.8593 5.0925 5.1499 5.2485 5.1499 5.2485 5.1499 5.2485 5.1499 5.2485 5.1499 5.2485 5.1499 5.2485 5.1499 5.2485 5.1493 5.3507 6.1853 6.3537 6.4939 6.18537 6.4939 6.85339	Y 1.2046 1.1969 1.1969 1.1780 1.1780 1.1683 1.1641 1.1672 1.1520 1.1520 1.1487 1.1477 1.1475 1.1475 1.1475 1.1475 1.1525	1.2031 1.1951 1.1879 1.1809 1.1746 1.1632 1.1529 1.1481 1.14387 1.1247 1.1251 1.1251 1.1251 1.1050 1.0999 1.0947 1.0549 1.0745 1.0770 1.0745 1.0744 1.0744 1.0738 1	.9986 .9983 .9980 .9975 .9976 .9946 .9920 .9946 .9920 .9404 .9802 .9765 .9762 .9765 .9762 .9765	**B236E - 05 **B790E - 05 **B790E - 05 **9339E - 05 **9883E - 05 **1042E - 04 **1148E - 04 **1201E - 04 **1253E - 04 **1355E - 04 **1556E - 04 **1556E - 04 **1756E - 04 **2136E - 04	.2145E-02 .2644E-02 .3143E-02 .3143E-02 .4143E-02 .5145E-02 .5646E-02 .5646E-02 .7159E-02 .7159E-02 .7159E-02 .7159E-02 .7159E-02 .1026E-01 .1079E-01 .11364E-01 .1246E-01 .1364E-01 .1364E-01 .1426E-01 .1576E-01 .1576E-01 .1776E-01 .1776E-01	1.2663 1.1330 1.1330 1.04477 .9375 .90372 .8275 .8275 .8275 .8276 .8276 .8276 .8276 .8276 .8276 .8276 .8336 .8276 .7835 .7835 .7835 .7835 .7896 .80187 .8018
156.0053 166.0053 176.0053 196.0053 206.0053 216.0053 226.0053 226.0053 226.0053 236.0053 236.0053 236.0053 236.0053 326.0053 326.0053 326.0053 326.0053 326.0053 346.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .5177 .3967 .3053 .2361 .1830 .1120 .0881 .0697 .0553 .0442 .0254 .0256 .0128 .0106 .0089 .0155 .0128 .0106 .0089 .0055	. 0163 . C237 . 0341 . 0485 . 0683 . 0955 . 1325 . 1825 . 2495 . 3390 . 6136 . 6180 1. C838 1. 4273 1. 8681 2. 4298 3. 1403 4. 0323 5. 1429 6. 5141 8. 1919 10. 226 40. 1010 23. 0239 27. 6781 13. 0386 39. 1752 46. 11661 54. 1012 63. 0366	3.0046 3.1124 3.2243 3.4402 3.4503 3.5835 3.7106 3.5411 3.9717 4.2514 4.2514 4.2538 4.0835 4.0835 4.0835 5.2846 5.7352 5.88274 6.1695 6.30431 6.27396 6.30837 6.30837 7.3517	2.2917 105.1501 107.9171 110.5985 113.1990 115.7219 118.1695 120.5429 122.8422 122.8422 122.8422 123.1666 127.2144 129.2884 133.1666 127.2144 129.2885 138.7941 141.1876 144.7326 145.7326 145.7326 146.6632 147.5632 147.5632 147.5637 148.46920 151.7286 153.2036 153.2036 157.1537 1.62.9184	Cp/R 3.4075 3.6075 3.7221 3.6348 4.0530 4.1592 4.2636 4.3662 4.5668 4.6651 4.7625 4.8593 5.1499 5.1499 5.1493 5.1590 5.7896 5.9139 6.1863 5.6339 7.0120 7.1914 7.3680 7.1914	Y 1.2046 1.1969 1.1900 1.1837 1.1729 1.1683 1.1641 1.1501 1.1572 1.1572 1.1573 1.1473 1.1473 1.1473 1.1473 1.1473 1.1599 1.1604 1.1559 1.1604 1.1731 1.1815 1.1815 1.1815 1.2030 1.2159 1.2458 1.2789 1.2458 1.2789 1.2458	1.2031 1.1951 1.1879 1.1809 1.1746 1.1682 1.1529 1.1529 1.1481 1.1433 1.1547 1.1247 1.1247 1.1251 1.1050 1.0949 1.	.9986 .9983 .9980 .9975 .9976 .9946 .9934 .9920 .9944 .9861 .9884 .9802 .9765	**B 236 F - 05 **B 790 t - 05 **B 790 t - 05 **P 339 t - 06 **P 35 t - 04 **P 35	.2145E-02 .2644E-02 .3143E-02 .3643E-02 .4143E-02 .5145E-02 .5145E-02 .5145E-02 .7159E-02 .7159E-02 .7159E-02 .8177-32 .8691E-02 .9238E-02 .9238E-02 .1026E-01 .1079E-01 .1134E-01 .1134E-01 .1246E-01 .125E-01 .1557E-01 .1557E-01 .1627E-01 .1708E-01	1.2630 1.1330 1.04477 .937427 .937427 .8454043 .845404 .845
156.0053 166.0053 176.0053 186.0053 196.0053 226.0053 226.0053 226.0053 226.0053 226.0053 226.0053 226.0053 226.0053 236.0053 326.0053 326.0053 326.0053 326.0053 326.0053 346.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .67187 .3967 .3053 .1430 .1120 .0881 .0452 .0155 .0452 .0128 .0106 .0089 .0075 .0047 .0055 .0047 .0055	. 0163 . C237 . 0341 . 0485 . 0683 . 0955 . 1825 . 1825 . 2495 . 3390 . 6576 . 6136 . 8180 1.4273 1.8681 2.4298 3.1429 6.5141 8.1919 10.2264 12.65794 12.657	3.0046 3.1124 3.2243 3.4402 3.4500 3.5835 3.5836 3.54117 4.2514 4.2514 4.2514 4.2384 4.28832 4.9832 5.2848 5.4385 5.2848 5.4385 6.2745 6.16042 6.4431 6.7003 6.8289 7.0508 7.2578 7.3578	2.2917 105.1501 107.9171 110.5945 113.1990 115.7219 128.422 128.422 128.422 131.2684 133.1664 127.2144 129.2842 131.2684 133.1666 127.2144 129.2842 131.2684 133.1666 127.2144 129.2842 131.2684 133.1666 127.2144 129.2842 131.2684 133.1666 127.2148 129.7941 141.1873 148.4692 149.4920 151.7286 154.9879 159.7732 162.9184	Cp/R 3.4907 3.6075 3.7221 3.0345 4.0530 4.1592 4.2636 4.3662 4.6668 4.6668 4.6668 4.6668 5.1499 5.2485 5.1499 5.2485 5.1499 5.2485 5.1499 6.1863 5.35600 5.7896 5.1898 6.8339 7.0120 7.5367 7.6921	Y 1.2046 1.1969 1.1969 1.1780 1.1780 1.1683 1.1641 1.1672 1.1520 1.1520 1.1477 1.1477 1.1475 1.1475 1.1475 1.1525 1.1506 1.1505 1.1505 1.1505 1.1505 1.1505 1.1505 1.1505 1.1604	1.2031 1.1951 1.1877 1.1809 1.1746 1.1632 1.1579 1.1529 1.1433 1.1247 1.1247 1.1251 1.1251 1.1050 1.0999 1.0947 1.0947 1.09406 1.07735 1.0744 1.0738 1.0934 1.0938 1.0938 1.1244 1.1244 1.1244 1.1244 1.1244	.9986 .9980 .9975 .9976 .9976 .9946 .9934 .9920 .9934 .9861 .9861 .9862 .9765	**B 236 E - 05 **B 790 t - 05 **B 790 t - 05 **9339 t - 05 **988 3E - 05 **104 2E - 04 **120 t E - 04 **130 t E - 04 **150 t E - 04 **219 t E - 04 **220 t E - 04 **238 t E - 04 **238 t E - 04 **250 t E	.2145E-02 .2644E-02 .3143E-02 .3143E-02 .4143E-02 .5145E-02 .5646E-02 .5646E-02 .7159E-02 .7159E-02 .7159E-02 .7159E-02 .1026E-01 .1036E-01 .1134E-01 .1246E-01 .1246E-01 .1354E-01 .1354E-01 .1364E-01 .1426E-01 .1557E-01 .1574E-01 .1774E-01 .1774E-01 .1774E-01 .1774E-01 .1774E-01 .1746E-01	1.2663 1.1330 1.04477 .9375 .90342 .84903 .821612 .79112 .78772 .78353 .7843 .78353 .7879 .78353 .7879 .78353 .7879 .78353 .7879 .8408 .84
156.0053 166.0053 176.0053 176.0053 196.0053 206.0053 226.0053 226.0053 236.0053 236.0053 236.0053 236.0053 236.0053 236.0053 326.0053 326.0053 326.0053 326.0053 326.0053 346.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .8943 .5177 .3967 .3053 .2361 .1830 .1120 .0881 .0697 .0553 .0442 .0254 .0256 .0128 .0106 .0089 .0155 .0128 .0106 .0089 .0055	. 0163 . C237 . 0341 . 0485 . 0683 . 0955 . 1325 . 1825 . 2495 . 3390 . 6136 . 6180 1. C838 1. 4273 1. 8681 2. 4298 3. 1403 4. 0323 5. 1429 6. 5141 8. 1919 10. 226 40. 1010 23. 0239 27. 6781 13. 0386 39. 1752 46. 11661 54. 1012 63. 0366	3.0046 3.1124 3.2243 3.4402 3.4503 3.5835 3.7106 3.5411 3.9717 4.2514 4.2514 4.2538 4.0835 4.0835 4.0835 5.2846 5.7352 5.88274 6.1695 6.30431 6.27396 6.30837 6.30837 7.3517	2.2917 105.1501 107.9171 110.5985 113.1990 115.7219 118.1695 120.5429 122.8422 122.8422 122.8422 123.1666 127.2144 129.2884 133.1666 127.2144 129.2885 138.7941 141.1876 144.7326 145.7326 145.7326 146.6632 147.5632 147.5632 147.5637 148.46920 151.7286 153.2036 153.2036 153.2036 157.1537 1.62.9184	Cp/R 3.4075 3.6075 3.7221 3.6348 4.0530 4.1592 4.2636 4.3662 4.5668 4.6651 4.7625 4.8593 5.1499 5.1499 5.1493 5.1590 5.7896 5.9139 6.1863 5.6339 7.0120 7.1914 7.3680 7.1914	Y 1.2046 1.1969 1.1900 1.1837 1.1729 1.1683 1.1641 1.1501 1.1572 1.1572 1.1573 1.1473 1.1473 1.1473 1.1473 1.1473 1.1599 1.1604 1.1559 1.1604 1.1731 1.1815 1.1815 1.1815 1.2030 1.2159 1.2458 1.2789 1.2458 1.2789 1.2458	1.2031 1.1951 1.1879 1.1809 1.1746 1.1682 1.1529 1.1529 1.1481 1.1433 1.1547 1.1247 1.1247 1.1251 1.1050 1.0949 1.	.9986 .9983 .9980 .9975 .9976 .9946 .9934 .9920 .9944 .9861 .9884 .9802 .9765	**B 236 F - 05 **B 790 t - 05 **B 790 t - 05 **P 339 t - 06 **P 35 t - 04 **P 35	.2145E-02 .2644E-02 .3143E-02 .3643E-02 .4143E-02 .5145E-02 .5145E-02 .5145E-02 .7159E-02 .7159E-02 .7159E-02 .8177-32 .8691E-02 .9238E-02 .9238E-02 .1026E-01 .1079E-01 .1134E-01 .1134E-01 .1246E-01 .125E-01 .1557E-01 .1557E-01 .1627E-01 .1708E-01	1.2630 1.1330 1.04477 .937427 .937427 .8454043 .845404 .845
156.0053 166.0053 176.0053 186.0053 186.0053 226.0053 226.0053 236.0053 236.0053 236.0053 236.0053 236.0053 236.0053 236.0053 336.0053 336.0053 336.0053 336.0053 346.0053	5.2508 3.8488 2.8405 2.1097 1.5762 1.1841 .6787 .5177 .3053 .1430 .0881 .1833 .1430 .0881 .0697 .0553 .0454 .0286 .0232 .0189 .0155 .0106 .0087 .0065 .0075 .0065 .0047 .0065	. 0163 . C237 . 0347 . 00485 . 0683 . 9355 . 1325 . 1325 . 1325 . 2495 . 2495 . 6136 . 6136 . 6136 . 14273 1.8681 2.4298 3.1403 4.0323 5.1429 6.5141 8.1919 10.2264 12.6704 17.6704 19.0102 23.0239 27.6781 33.0386 39.1752 39	3.0046 3.1124 3.2243 3.4402 3.4500 3.5836 3.7106 3.6411 3.9719 4.2514 4.0384 4.03835 4.9832 5.13838 5.4388 5.43861 5.7352 6.8274 6.1695 6.3431 6.57303 6.8229 7.1572 7.3517 7.3514	2.2917 105.1501 107.9171 110.5990 115.7219 118.16990 115.7219 122.8422 122.8422 123.1666 127.2144 121.2684 133.1669 133.1669 134.1689 134.16839 134.1689 134.1878 134.7326 145.7632 147.5633 148.4692 151.7294 146.66337 148.4692 151.7294 146.66337 148.4692 151.7294 146.66637 159.7737 159.7737 159.7737 159.7737	Cp/R 3.4907 3.6075 3.7221 3.0345 4.0530 4.1592 4.2636 4.3602 4.5668 4.6651 4.7025 4.8593 5.4528 5.01499 5.7499 5.7499 6.1863 5.4939 6.1863 5.4939 6.1863 7.0120 7.1914 7.3680 7.5567 7.6921 7.8287	Y 1.2046 1.1969 1.1969 1.1830 1.1729 1.1683 1.1641 1.16542 1.15440 1.15440 1.15440 1.1547 1.1477 1.1473 1.1473 1.1473 1.1473 1.1473 1.1525 1.1	1.2031 1.1951 1.1809 1.1746 1.1632 1.1529 1.1529 1.1481 1.14337 1.1247 1.1247 1.1251 1.1050 1.0999 1.0947 1.0849 1.1849 1	.9986 .9983 .9980 .9975 .9976 .9946 .9946 .9946 .9946 .9946 .9950 .9461 .9861 .9861 .9765 .9765 .9765 .9765 .9765 .9765 .9765 .9765 .9765 .9765 .9765 .9866	**B236E - 05 **B790E - 05 **B790E - 05 **B83E - 05 **U42E - 04 **L04E - 04 **L	.2145E-02 .2644E-02 .3143E-02 .3643E-02 .4143E-02 .5145E-02 .5145E-02 .5645E-02 .6623E-02 .7159E-02 .7159E-02 .7159E-02 .7179E-01 .1079E-01 .1079E-01 .1134E-01 .1134E-01 .1246E-01 .1246E-01 .1564E-01 .1564E-01 .1557E-01 .170E-01 .170E-01 .170E-01 .170E-01 .170E-01 .170E-01 .170E-01 .170E-01 .170E-01 .1246E-01 .1246E-01 .1246E-01 .1246E-01 .1246E-01 .1246E-01 .1246E-01 .1257E-01 .1257E-01 .1260E-01 .1260E-01 .1260E-01 .2245E-01 .2245E-01 .2360E-01	1.21337 1.213477 1.34477 1.94477 1.

TABLE III.- Continued

s/R= 7.0000											
T	٧	р	h / RT	a	c _p /R	γ	Υe	Z	μ	k	N _{Pr}
158.9334	11.1673	.0678	3.0364	103.1984	3.2227	1.2016	1.2011	.9993	.8398E-05	.2290E-02	1.2205
168.4334	8.2012	.0113	3.1457	135.0459	3.5334	1.1943	1.1934	.9992	.8950E-05	.2789E-02	1.1032
178.9334	6.0634	.0162	3.2590	168.8080	3.7518	1.1874	1.1364	.9990	.9498E-05	.3287E-02	1.0240
188.7334	4.5106	.0231	3.3754	111.4912	3.8529	1.1812	1.1799	.9988	.1004E-04	.3786E-02	.9676
190.9334	3.3749	.0324	3.4978	114.1010	3.9717	1.1755	1.1740	.9986	.1058E-04	.4286E-02	.9260
208.9334	2.5386	.0453	3.6229	115.5416	4.0783	1.1704	1.1685	.9963	.1111E-04	.4785E-02	.8944
218.9354	1.9194	.0627	3.7518	119.1156	4.1827	1.1656	1.1633	.9979	.1163E-04	.5285E-02	.8699
228.9334	1.4583	.0853	3.8842	121.5288	4.2849	1.1614	1.1585	.9975	.1216E-04	.5785E-02	.8506
230.9334	1.1131	.1179	4.0201	123.5500	4.3050	1.1574	1.1540	.9969	.1267E-04	.6285E-02	.8351
248.4334	.8534	.1631	4.15+3	126.1717	4.4830	1.1539	1.1498	.9963	.1318E-04	.6786E-02	.8226
258.9334	.6572	.2161	4.3018	128.4046	4.5791	1.1507	1.1457	.9955	.1369E-04	.72888-02	.8124
268.9334	.5081	.2900	4.4472	130.57e7	4.6734	1.1478	1.1418	. 9946	.1419E-04	.7791E-02	.8040
278.9334	.3945	.3671	4.5954	132.6936	4.76>9	1.1453	1.1380	.9936	.1468E-04	.8295E-02	.7970
288.9334	.3675	.5137	4.7463	134.7484	4.8568	1.1430	1.1344	. 9923	.1518t-04	.8800E-02	.7912
298.7334	.2406	.6781	4.6997	136.7415	4.9462	1.1411	1.1308	.9908	.1566E-04	.9307E-02	.7864
338.9334	.1891	· £904	5.0552	138.6711	2.0344	1.1396	1.1272	.9891	.1615E-04	.9817E-02	.7824
318.9334	.1491	1.1:31	2.2127	140.5350	5.1217	1.1384	1.1237	.9871	.1663E-04	.1033E-01	.7790
328.9334	.1161	1.5111	5.3719	142.331)	5.2002	1.1375	1.1202	.9848	.1711t-04	.1084E-01	.7763
330.9334	. 0939	1.9529	5.5323	144.0569	1.2943	1.1371	1.1167	.9821	.1759E-04	.1136E-01	.7741
348.7334	• 975 <i>0</i>	2.5102	5.6937	145.7109	p.3d04	1.1372	1.1132	.9791	.1807E-04	.1189E-01	.7725
358.9334	.06G1	3.2686	o.805d	147.2922	2.4570	1.1377	1.1097	.9756	.1855E-04	.1242E-01	.7713
368.9334	.3484	4.(784	6.01%0	146.8611	5.5546	1.1388	1.1063	.9718	.1903E-04	·1296E-01	.7706
378.4334	.0392	5.1551	6.17+9	150.2400	5.6436	1.1405	1.1029	.9675	.19528-04	.1351E-01	.7705
388.9334	. 1319	6.4765	6.341)	151.6137	v.7348	1.1428	1.6996	.9627	.2001t-04	.1406E-01	.7708
398.9334	.J260	8.C87C	5.5010	152.9366	ე•928 7	1.1459	1.0966	. 9576	.2051E-J4	.1463E-01	.7718
408.7334	.0214	10.0346	c • 6 5 9 3	154.2033	5.9262	1.1499	1.0940	.9521	.2102E-04	.1522E-01	.7733
418.7334	.0177	12.3713	6.8154	155.4492	0.0277	1.1547	T.03T8	.9463	.21548-04	.1582E-01	.7755
428.4334	.0147	15.1527	6.9589	150.6913	5.1340	1.1605	1.0903	•9404	.2207E-04	.1644E-01	.7783
436.9334	.0123	16.4376	7.1175	157.9582	0.2456	1.1673	1.0898	. 4343	.2262E-04	.1708E-U1	.7816
445.4334	.0103	22.2878	7.2668	159.2833	5.3628	1.1751	1.0705	.9283	.2319E-04	.1774E-01	.7856
458.7334	.0067	26.7650	7.4100	160.7075	5.4856	1.1839	1.0926	.9226	.2379E-04	.1844E-01	.7907
468.9334	.0674	31.9369	7.5535	142.2739	o.6139	1.1938	1.0965	.9174	.2444E-04	.1916E-01	.7968
478.9334	• JC 6 4	37.8746	7.6005	154.0294	5.7471	1.2044	1.1024	.9128	•2513E-04	.1993t-01	.8039
486.4334	• 0055	44.6524	7.0183	166.0225	0.0038	1.2159	1.1108	9091	.2589E-04	.2073E-01	.8121
498.7334	.5648	52.3549	7.4457	168.3029	7.0227	1.2278	1.1218	.9065	.2671E-04	.2158E-01	.8213
508.4334	.0042	61.0739	n.0583	170.9190	7.1014	1.2399	1.1357	.9053	.2761E-04	.2247E-01	.8312
518.9334	.0037	70.4134	3.1857	173.9217	7.2974	1.2019	1.1528	.9057	.2860E-04	.2342E-01	.8417
528.1334	. 3032	51.9938	a . 2972	177.3595	7.4277	1.2636	1.1734	.9379	. 2969E-04	.2444E-01	.8526
538.7334	.3629	94.4512	8.4017	131.2663	7.5441	1.2745	1.1976	.9120	.3U89E-04	.2552E-01	.8634
548.9334	.302€	108.4445	3.4979	145.7469	7.6281	1.2843	1.2258	.9184	.3222E-04	.2667E-01	.8739
558.9334	.0023	124.157€	8.5840	190.7993	7.7515	1.2928	1.2503	.9272	.3368E-04	.2792E-01	.8835
268.1334	. 3021	14,1.8039	8.6577	190.5223	7.8201	1.2997	1.2954	.9387	.3529E-04	.2926E-01	.8918
578.9334	.0019	161.6312	b.7153	202.9851	7.6791	1.3050	1.3376	.9531	.37056-04	.3070E-01	.8984
584.7127	. OC18	174.1949	8.7419	267.0914	7.8990	1.3073	1.3645	.9629	.3815E-04	.3159E-01	.9011

TABLE III. - Continued

s/R= 7.5000											
T	V	p	h/RT	а	c _p ∕R	γ	γ _e	Z	μ	k	N _{Pr}
186.8875	11.1665	.0092	3.3527	110.9987	3.8387	1.1821	1.1816	.9994	.9929E-05	.3683E-02	.9775
196.8875	8.3439	.0130	3.4734	113.6364	3.9476	1.1763	1.1756	.9993	.1047E-04	.4182E-02	.9333
206.8875	6.2692	.6182	3.5981	116.2073	4.0542	1.1709	1.1701	. 9992"	.1160E-04	.4681E-02	. 4000
216.8875	4.7345	•0252	3.7265	118.7158	4.1585	1.1560	1.1651	.9991	·1153E-04	.5180E-02	.8741
226.8875	3.5929	.0348	3.8586	121.1656	4.2605	1.1615	1.1604	. 9989	·1205E-04	.5679E-02	.8538
236.8875	2.7392	.0476	3.9943	123.5598	4.3602	1.1574	1.1560	.9987	.1256E-04	•6178E-J2	.8376
246.8875	2.0976	.0647	4.1335	125.9008	4.4576	1.1536	1.1519	.9984	.1307E-04	.6678E-02	. 8245
256.8875	1.6133	.0876	4.2760	128.1908	4.5529	1.1501	1.1481	.9981	.13586-04	.7177£-02	.8137
266.8875	1.2457	.1178	4.4218	130.4314	4.6429	1.1469	1.1444	.9977	.1408E-04	.7678E-U2	. 8048
276.8875	.9657	.1575	4.5708	132.6238	4.7369	1.1440	1.1410	. 4973	.1457E-04	.8178E-02	.7974
286.8875	.7516	.2096	4.7227	134.7688	4.8257	1.1413	1.1377	. 4967	.1566E-04	.8680E-UZ	.7912
296.8875	.5871	.2775	4.8775	136.8669	4.9126	1.1389	1.1346	.9761	.1555E-04	.91821-02	.7859
306.8875	.4604	.3656	5.0350	138.9183	4.9975	1.1367	1.1316	. 9954	.1603E-04	.9685E-02	.7814
316.8875	.3623	.4793	5.1950	140.9228	5.0806	1.1348	1.1257	. 9945	.1651E-04	.1019E-31	•7775
326.8875	.2861	•6253	5.3574	142.8800	5.1621	1.1331	1.1259	.9935	.1698E-04	.1669E-01	.7742
336.8875	.2268	.8121	5.5220	144.7895	5.2419	1.1317	1.1232	.9924	.1745E-04	·1120E-01	.7713
346.8875	.1804	1.0497	5.6885	146.6506	5.3204	1.1306	1.1206	•9911	.1791E-04	.1171E-01	.7688
356.8875	.1441	1.3505	5.8567	148.4627	5.3977	1.1297	1.1180	. 9895	.1838E-04	.1222E-01	. 7666
366.8875	.1155	1.7295	6.0264	150.2254	5.4740	1.1291	1.1154	. 7878	· 1884£-04	.1274E-01	.7647
376.8875	.0929	2.2043	6.1972	151.9388	5.5476	1.1258	1.1129	.9359	•1930E-04	.1326E-U1	.7632
386.8875	.0750	2.7961	6.3690	153.6034	5.6248	1.1289	1.1105	.9837	•1975t-04	.1378E-01	.7619
396.8875	.0608	3.5297	6.5413	155.2209	5.6999	1.1294	1.1082	.9813	.2022E-34	.1431E-01	.7608
406.8875	.0495	4.4336	6.7138	156.7943	5.7753	1.1303	1.1060	. 4786	.206 b E - U 4	.1485E-UL	.7601
416.8875	.0404	5.5407	6.8861	158.3281	5.8515	1.1316	1.1040	.9757	.2115E-04	.1>39E-01	.7597
426.8875	.0332	6.8883	7.0579	159.8292	5.9288	1.1335	1.1022	.9725	.2162E-04	.1594E-01	. 7596
436.8875	.0274	8.5179	7.2288	161.3073	6.0077	1.1359	1.1068	.9692	.2210E-04	.1650E-ŭl	.7598
446.8875	.0227	10.4755	7.3983	162.7748	6.0887	1.1389	1.0997.	.9657	.2258E-04	.17J8E-01	.7605
456.8875	.0189	12.8110	7.5661	164.2478	5.1723	1.1425	1.0993	.9621	.23C8E-04	.1757E-01	.7615
466.8875	.0158	15.5782	7.7319	165.7460	5.2589	1.1469	1.0495	.9586	.2358E-04	.1027E-01	.7631
476.8875	.0133	18.8364	7.8953	167.2922	5.3488	1.1519	1.1006	→551	·2410c-04	.1840E-31	.7650
486.8875	.0113	22.6426	8.0561	168.9140	5.4423	1.1577	1.1328	.9518	·2464L-04	.1954E-01	.7672
496.8875	.0096	27.0617	8.2139	170.6407	6.5393	1.1642	1.1062	.9489	.2519E-34	.2021E-01	.7760
506.8875	.0082	32.1599	4.3687	172.5042	6.6398	1.1715	1.1110	.9465	.2578E-04	.2091E-G1	.7736
516.8875	.0071	38.0069	8.5201	174.5379	3.7434	1.1793	1.1175	. 4447	.2641t-04	.2163£-01	.7779
526.8875	.0061	44.6764	8.6681	176.7757	6.8494	1.1876	1.1257	. 9437	.2709E-J4	.2239E-01	.7830
536.8875	.0053	52.2468	8.8125	179.2514	5.9570	1.1966	1.1360	.9437	.27t2E-04	.2318E-J1	. 7888
546.8875	.0047	60.8026	8.9529	181.9979	7.0648	1.2058	1.1483	. 9446	.2661E-04	.2401E-01	.7952
556.8875	.0041	70.4358	9.0891	185.0478	7.1715	1.2151	1.1629	.9471	.2947E-04	.2489E-01	8322
566.8875	.0037	81.2475	9.2205	188.4331	7.2751	1.2244	1.1799	.9509	.3041E-04	.2581c-01	.8097
576.8875	.0033	93.3498	9.3465	192.1866	7.3739	1.2334	1.1994	.9562	.3143E-04	.2679E-01	.8174
586.8875	.0029	106.8675	9.4661	196.3426	7.4657	1.2420	1.2216	.9632	.3255E-04	.2782t-01	.8252
588.8889	.0029	109.7546	9.4892	197.2260	7.4831	1.2437	1.2263	.9648	.3279t-04	.2803E-01	.8268

TABLE III. - Continued

5 /R= 3.0000											
T	V	p	h∕RT	a	c _p ∕R	Υ	Υe	Z	μ	k	N Pr
216.4679 226.4679	11.1679 F.4724	.C107 .0147	3.721c 3.5537	110.6544 121.1173	4.1529 4.2547	1.1660	1.1650 1.1609	.9995 .9994	.1150E-04 .1202E-04	.5158E-02	.8750 .8544
236.4679	6.4574	·C202	3.9395	123.5267	4.3541	1.1572	1.1266	9994	.1254E-04	.5656E-02	.8380
246.4677	4.7434	. 6274	4.1238	125.6054	4.4512	1.1533	1.1520	.9992	.1365E-04	.6654E-02	.8247
256.+679	3.8007	.0371	4.2715	129.1973	4.5460	1.1497	1.1489	.9991	.1356E-J4	.7153E-02	.8139
266.4679 270.4679	2.9336 2.2733	.CE69	4.4176 4.5670	130.4632 132.6826	4.63d5 4.72d7	1.1464 1.1434	1.1454 1.1421	.4989 .9988	.1406E-04 .1455E-04	.7652E-02 .8152E-32	.8048 .7973
286.4679	1.7683	.0691	4.7194	134.8661	4.5167	1.1405	1.1390	.9985	.1504E-04	.8651E-02	.7910
295.4677	1.3806	.1101	4.8750	137.0061	4.9324	1.1379	1.1361	.9983	.1552E-04	.9151E-02	.7855
306.467)	1.0818	.1558	5.6334	139.1007	4.9800	1.1355	1.1333	.9980	.1600E-04	.9652E-02	.7809
310.4674 320.4674	.0507	.2645	3.1945	141.1697	ა.ეი73 5.146€	1.1333	1.1307	.9976	-1648E-J4	.1015E-01	.7768
336.4677	•c712 •5315	.2672 .3477	>∙3584 >•5248	143.1929 145.1797	5.2239	1.1313	1.1282 1.1258	.9972 .9967	.1694E-04 .1741E-04	.1065E-01 .1116E-01	.7733 .7701
346.4679	. +222	.4504	5.6936	147.1296	5.2991	1.1278	1.1536	. 4961	.1767E-04	.1166E-01	.7673
326.4677	.3360	.5809	5 • 05 45	149.042)	J.3725	1.1264	1.1214	.9954	.1 d33t-J4	.1216E-01	.7647
366.4677	.2091	.7462	6.0376	150.9198	5.4441	1.1251	1.1193	.9947	.1878E-04	.1267E-01	.7624
376.4679 386.4677	.2160 .1739	.5544 1.2.57	6.2125 6.3191	152.7004 154.5658	5.5141 5.5325	1.1241	1.1172	.9938 .9926	.1923E-04 .1968E-04	.1318E-01 .1369E-01	.7603 .7583
396.4679	.1405	1.5421	6.5572	156.3361	2.6442	1.1226	1.1134	.9917	.2012E-04	.1420E-01	.7565
406.4571	.1139	1.5450	0.7456	159.0724	2.7154	1.1222	1.1117	.9965	.2057E-04	.1471E-01	.7548
416.4679	. 142É	2.4503	6.9270	159.7764	2.7003	1.1221	1.1100	9892	.2101E-04	.1523E-01	. 7533
426.4679 436.4679	. 3756 . 3620	3.0689 3.8270	7.1081 7.2897	161.4004 163.0977	>.8444 >.9∪30	1.1222	1.1085 1.1071	.9877 .9851	.2145E-04 .2189E-04	.1575E-01 .1628E-01	.7519 .7506
446.4674	.0510	4.7514	7.4716	164.7229	2.9714	1.1234	1.1359	. 7844	.2234E-04	.1681E-01	.7495
456.4679	.0421	5.8724	7.0533	156.3320	5.0348	1.1245	1.3050	.9825	.2279L-04	.1735E-01	7480
466.4677	. 1349	7.2245	7.8346	167.9325	5.0987	1.1260	1.1043	.9866	.2324E-04	.1790E-01	•7479
476 • 4677	. 3290	8.6450	0.0151	169.53)1	5.1633	1.1279	1.1041	. 9787	.2369E-04	.1646E-01	.7474
486.4679 496.4679	.0243	10.7793	8.1947 8.3728	171 .1 511 172 .7 95 <i>2</i>	5.2290 5.2961	1.1303	1.1042	.9768 .9749	.2415E-04 .2462E-04	.1902E-01	.7472 .7472
206.4679	.0204 .0172	15.7722	5.5493	174.4838	5.3650	1.1364	1.1064	.9732	.2510E-04	.2019E-01	7475
516.4679	.0146 .	10.9342	5.7240	176.2366	5.4357	1.1403	1.1087	.9716	.2560E-04	.2080E-01	.7481
526.4679	. 1124	22.6146	4.8965	174.0743	3.5085	1.1447	1.1118	.9704	.2610E-04	.2143E-01	.7488
536.4679	.0107	26.8734	9.0665	146.0145 182.0959	5.5835	1.1497 1.1551	1.1160	.9696	.2661E-04 .2715E-04	.2207E-01	.7499 .7515
546.4679 556.4679	.0092 .0080	31.7730 37.3791	9.2342 9.3991	134.3273	5.6oJ6 5.7395	1.1611	1.1214	.9692 .9695	.2772E-04	.2274E-01 .2342E-01	.7535
206.4679	.0069	43.7599	9.5511	ر7373 186	5.3200	1.1675	1.1362	.9705	.2833t-04	.2414E-01	.7561
576.4679	. JU61	50.9473	4.7202	107.3495	3.9014	1.1743	1.1457	.9724	.2848L-34	.2486E-01	.7592
j86.4679	. 3053	59.1366	7.6750								
				192.1853	6.9831	1.1814	1.1569	.9751	.2967E-04	.2566E-01	.7629
588.3869	. 3052	61.2573	9.9132	192.9078	7.0029	1.1832	1.1598	.9760	.29848-04	.2585E-01	.7638
				192.9078	7.0029 /R= 8.5000	1.1832	1,1598				.7638
7 T	. 3C52	o1.2573	9.9132 h /RT	192.9073 s	7.0029 /R= 8.5000 c / R	1.1832 Y	1.1598 γ _e	.9760 Z		. 2585E-01 k	.7638 N _{Pr}
7 247.6560	V	p .c122	9.9132 h /RT 4.1451	192.9078 s a 126.1941	7.0029 /R= 8.5000 c R p 4.4616	1.1832 Y 1.1527	Y e	.9760 Z	.2984E-04 µ .1311E-04	k:6712E-02	.7638 N _{Pr}
7 247.6563 257.6560	V 11.1686 6.5893	p .c122	9.9132 h /RT 4.1451 4.2894	192.9078 s a 125.1941 128.5135	7.0029 /R = 8.5000 c R p 4.4616 4.5559	1.1832 Y 1.1527 1.1491	Y e 1.1524 1.1487	.9760 Z .9996	.2964E-04 µ .1311E-04 .1361E-04	k .6712E-02 .7211E-02	N Pr .8233 .8126
7 247.6560 257.6560 267.5560	V 11.1686 6.5893 6.6332	p .c122 .0165 .c222	9.9132 h /RT 4.1451 4.2894 4.4361	192.9078 s a 125.1941 128.5135 130.7844	7.0029 /R= 8.5000 C R 4.4616 4.2529 4.6478	1.1832 Y 1.1527 1.1491 1.1458	Y e 1.1524 1.1487 1.1453	.9760 Z .9996 .9995	.2964E-04 µ .1311E-04 .1361E-04 .1411E-04	.2585E-01 k .6712E-02 .7211E-02 .7710E-02	N Pr .8233 .8126 .8038
7 247.6563 257.6560	V 11.1686 6.5893	p .c122	9.9132 h /RT 4.1451 4.2894	192.9078 s a 125.1941 128.5135	7.0029 /R = 8.5000 c R p 4.4616 4.5559	1.1832 Y 1.1527 1.1491	Y e 1.1524 1.1487	.9760 Z .9996	.2964E-04 µ .1311E-04 .1361E-04	k .6712E-02 .7211E-02	N Pr .8233 .8126
247.6560 257.6560 257.6560 267.5560 277.6560 287.6560 297.6560	V 11.1686 6.5893 6.6332 5.1417 4.3008 3.1244	p .C122 .0165 .C222 .C297 .C396	9.9132 h /RT 4.1451 4.2894 4.4361 4.5360 4.7392 4.6954	192.9078 S a 125.1991 128.5135 136.7844 133.0141 135.2045 137.3574	7.0029 /R= 8.5000 C R 4.4616 4.2559 4.6478 4.7374 4.0247 4.9096	1.1832 Y 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371	1.1598	.9760 Z .9996 .9995 .9995 .9994 .9993	.2964E-04 µ .1311E-04 .1361E-04 .1461E-04 .1509E-04	k .6712E-02 .7211E-02 .7710E-02 .8209E-02 .8708E-02 .9207E-02	N Pr .8233 .8126 .8038 .7963 .7961 .7847
7 247.6560 257.6560 267.5560 277.6560 267.6560 297.6560 307.6560	V 11.1686 6.5893 6.6332 5.1417 4.3008 3.1244 2.4486	p .C122 .0165 .C222 .C247 .C396 .U246 .U692	9.9132 h /RT 4.1451 4.2894 4.4361 4.5360 4.7392 4.0454	192.9078 8 126.1991 128.5135 136.7844 133.0141 135.2045 137.3574 139.4741	7.0029 /R= 8.5000 C/R 4.4616 4.7559 4.6478 4.7374 4.0247 4.0247 4.9096 4.9422	1.1832 7 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347	Y e 1.1524 1.1453 1.1451 1.1363 1.1337	.9760 Z .9996 .9995 .9995 .9994 .9992 .9990	.2964E-04 µ .1311E-04 .1361E-04 .1411E-04 .1461E-04 .1509E-04 .1508E-04	k .6712E-02 .7211E-02 .7710E-02 .8209E-02 .8708E-02 .9207E-02	N Pr .8233 .8126 .8038 .7963 .7963 .7961
247.6563 257.6560 267.5550 277.6560 267.6560 297.6560 307.6560 317.6560	V 11.1686 6.5893 6.6332 5.1417 4.3008 3.1244 2.4486 1.7257	P	9.9132 h / RT 4.1451 4.2894 4.3361 4.5360 4.7392 4.0454 5.2167	192.9078 S a 126.1991 128.5135 130.7644 133.0141 135.2045 137.3574 139.4741 141.5562	7.0029 /R= 8.5000 C/R 4.4616 4.2559 4.6478 4.7374 4.9096 4.9422 5.0725	1.1832 Y 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324	1.1598 y e 1.1524 1.1457 1.1453 1.1421 1.1363 1.1337 1.1312	.9760 Z .9996 .9995 .9995 .9993 .9999 .9999	.2964E-04 µ .1311E-04 .1361E-04 .1461E-04 .1509E-04 .1558E-04 .1653E-04	.2585E-01 k .6712E-02 .7211E-02 .7710E-02 .8209E-02 .8209E-02 .9207E-02 .9706E-02 .1021E-01	N Pr .8233 .8126 .8038 .7963 .7961 .7861 .7760
7 247.6560 257.6560 267.5560 277.6560 267.6560 297.6560 307.6560	V 11.1686 6.5893 6.6332 5.1417 4.3008 3.1244 2.4486	p .C122 .0165 .C222 .C247 .C396 .U246 .U692	9.9132 h /RT 4.1451 4.2894 4.4361 4.5360 4.7392 4.0454	192.9078 8 126.1991 128.5135 136.7844 133.0141 135.2045 137.3574 139.4741	7.0029 /R= 8.5000 C/R 4.4616 4.7559 4.6478 4.7374 4.0247 4.0247 4.9096 4.9422	1.1832 7 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347	Y e 1.1524 1.1453 1.1451 1.1363 1.1337	.9760 Z .9996 .9995 .9995 .9994 .9992 .9990	.2964E-04 µ .1311E-04 .1361E-04 .1411E-04 .1461E-04 .1509E-04 .1508E-04	k .6712E-02 .7711E-02 .7710E-02 .8209E-02 .9207E-02 .9207E-02 .1021E-01	N Pr .8233 .8126 .8038 .7963 .7961 .7847 .7801 .7760
247.6560 257.6560 257.6560 267.6560 277.6560 297.6560 317.6560 327.6560 337.6560 347.6560	. JC52 V 11.1686 8.5893 6.6332 5.1417 4.JC08 3.1244 2.4486 1.4257 1.7196 1.2031	p .(122 .0165 .(222 .0297 .0396 .(242 .(29	9.9132 h /RT 4.1461 4.2894 4.4361 4.5360 4.7392 4.0194 5.2167 5.3815 5.2491 5.7171	192.9078 a 126.1991 128.5135 136.7644 133.0141 139.2045 137.3574 139.4741 141.5562 143.6045 145.6256 147.6050	7.0029 R = 8.5000 C P 4.4616 4.7559 4.6478 4.7374 4.0247 4.9496 4.9492 5.07725 5.1506 5.2264 5.3000	1.1832 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1302 1.1283 1.1264	1.1598 Y e 1.1524 1.1487 1.1453 1.1331 1.1337 1.1312 1.1269 1.1267 1.1246	.9760 Z .9996 .9995 .9995 .9994 .9992 .9987 .9987 .9982	.2964E-04 µ .1311E-04 .1361E-04 .1461E-04 .1509E-04 .1005E-04 .1653E-04 .1699E-04 .1792E-04	k .6712E-02 .7211E-02 .7710E-02 .8209E-02 .8706E-02 .9706E-02 .1021E-01 .1121E-01 .1171E-01	N Pr .8233 .8126 .8038 .7963 .7847 .7840 .7760 .7724 .7692 .7663
7 247.6560 257.6560 267.6560 277.6560 297.6560 317.6560 317.6560 327.6560 337.6560 347.6560	. JC52 V 11.1686 8.5893 6.6332 5.1417 4.JC08 3.1244 2.4486 1.4257 1.7196 1.2031 9556 7615	p .(122 .0165 .(222 .0297 .0396 .0492 .(492 .(492 .1196 .1194 .2061 .2582	9.9132 h / RT 4.1451 4.2894 4.3951 4.5360 4.7392 4.0454 5.2157 5.3815 5.5491 5.7171 5.0917	192.9078 a 126.1991 128.5135 130.7644 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 145.6206 147.6050 149.5585	7.0029 /R= 8.5000 C/R 4.4616 4.7559 4.6478 4.7374 4.0247 4.0247 6.9496 4.9422 5.0725 5.1530 5.2264 5.3000 5.3715	1.1832 Y 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1302 1.1283 1.1264 1.1264	1.1598 Y e 1.1524 1.1453 1.1453 1.1363 1.1337 1.1312 1.1269 1.1266 1.1246 1.1246	.9760 Z .9996 .9995 .9994 .9994 .9990 .9987 .9987 .9982 .9982	.2964E-04 µ .1311E-04 .1361E-04 .1411E-04 .1461E-04 .1558E-04 .1653E-04 .1694E-04 .1746E-04 .1746E-04	k .6712E-02 .7211E-02 .7710E-02 .8708E-02 .9207E-02 .9207E-02 .1021E-01 .1171E-01 .1171E-01 .121E-01	N Pr .8233 .8126 .8038 .7963 .7961 .7861 .77601 .7762 .7663 .7663
7 247.6560 257.6560 267.5560 267.6560 267.6560 317.6560 317.6560 327.6560 347.6560 347.6560 357.6560 357.6560	V 11.1686 6.5893 6.6332 5.1417 4.3008 3.1244 2.4486 1.9257 1.7196 1.2031 9556 7615 6087	P	9.9132 h / RT 4.1461 4.2894 4.4361 4.3860 4.7392 4.0546 5.2167 5.3815 5.7171 5.6917 6.6665	192.9078 S a 126.1991 128.5135 136.7844 133.0141 135.2045 137.3574 141.5562 143.6045 145.6266 147.6050 149.5585 151.4819	7.0029 /R= 8.5000 C/R 4.4616 4.2559 4.6478 4.3247 4.3247 4.3247 4.325 5.0725 5.1536 5.3030 5.3715 5.4408	1.1832 7 1.1527 1.1491 1.1458 1.1427 1.1398 1.1377 1.1347 1.1347 1.1302 1.1264 1.1248 1.1248 1.1248	1.1598 y e 1.1524 1.1453 1.1421 1.1363 1.137 1.1312 1.1249 1.1246 1.1246 1.1246 1.1226	.9760 Z .9996 .9995 .9994 .9993 .9990 .9987 .9987 .9982 .9979	.2964E-04 µ .1311E-04 .1361E-04 .1411E-04 .1509E-04 .1509E-04 .1505E-04 .1653E-04 .1699E-04 .1792E-04 .1637E-04	k .6712E-02 .7211E-02 .7710E-02 .8209E-02 .8708E-02 .9706E-02 .1021E-01 .1071E-01 .1121E-01 .1221E-01 .1271E-01	N Pr .8233 .8126 .8038 .7963 .7961 .7860 .7760 .7724 .7663 .7663 .7636
247.6560 257.6560 257.6560 277.6560 277.6560 307.6560 317.6560 327.6560 337.6560 357.6560 357.6560 357.6560	. JC52 V 11.1686 5.382 5.1417 4. JC08 3.1244 2.4486 1.24257 1.2136 7615 6087 4882	p .(122 .0165 .(222 .0297 .0396 .024 .(692 .0496 .1176 .1544 .2061 .2562 .3320 .4250	9.9132 h / RT 4.1461 4.6361 4.5360 4.7392 4.0454 5.2167 5.3415 5.5491 5.7171 6.6667 6.2435	192.9078 S a 126.1991 128.5135 136.7644 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 145.6266 147.6050 149.5585 151.4819 153.3760	7.0029 /R= 8.5000 C P 4.4616 4.7559 4.6478 4.7374 4.9247 4.9496 4.9492 5.0725 5.1536 5.2264 5.274408 5.3715 5.4408 5.5081	1.1832 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1283 1.1264 1.1233 1.1219	1.1598 Y e 1.1524 1.1467 1.1453 1.1391 1.1363 1.1337 1.1312 1.1267 1.1267 1.1266 1.12267 1.1129	.9760 Z .9996 .9995 .9995 .9992 .9990 .9987 .9987 .9987 .9982 .9979 .9976	.2964E-04 .1311E-04 .1361E-04 .1411E-04 .1508E-04 .1508E-04 .1653E-04 .1658E-04 .1746E-04 .1746E-04 .1746E-04 .1792E-04 .1882E-04	k .6712E-02 .7211E-02 .7211E-02 .8209E-02 .8209E-02 .9706E-02 .9706E-02 .1021E-01 .1121E-01 .1121E-01 .1221E-01 .1221E-01 .1321E-01	N Pr . 8233 . 8126 . 8038 . 7963 . 7961 . 77801 . 7760 . 7724 . 7663 . 7611 . 7588
247.6560 257.6560 257.6560 267.6560 277.6560 317.6560 317.6560 337.6560 337.6560 357.6560 357.6560 367.6560 367.6560 377.6560 377.6560 377.6560 377.6560 377.6560	V 11.1686 8.5893 6.6332 5.1417 4.3008 3.1244 2.4486 1.257 1.2196 1.2031 -9556 -7615 -6087 -4882 -3927 -3169	p .(122 .0165 .0222 .0297 .0396 .024 .0421 .0421 .0562 .1196 .1544 .20G1 .2562 .332C .4250 .5421 .6888	9.9132 h /RT 4.1461 4.2894 4.3361 4.3362 4.3392 4.0394 5.2167 5.3315 5.491 5.7171 5.0917 6.6655 6.2435 6.4226 6.0035	192.9078 a 126.1991 128.5135 136.7644 133.0141 135.2045 137.3574 139.4771 141.5562 143.6045 145.6206 147.6050 149.5585 151.4819 153.3760 155.22413 157.0756	7.0029 /R= 8.5000 Cp 4.4616 4.7559 4.6478 4.7374 4.9296 4.9492 5.0725 5.1500 5.2264 5.3000 5.3715 5.4408 5.5031 5.7333 5.5306	1.1832 Y 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1302 1.1283 1.1264 1.1248 1.1	1.1598 Y e 1.1524 1.1467 1.1453 1.1391 1.1363 1.1337 1.1312 1.1267 1.1246 1.12267 1.1246 1.1227 1.1189 1.1172 1.1172	.9760 Z .9996 .9995 .9995 .9993 .9992 .9987 .9982 .9982 .9982 .9976 .9972 .9963	.2964E-04 µ .1311E-04 .1361E-04 .1411E-04 .1509E-04 .1653E-04 .1653E-04 .1746E-04 .1746E-04 .1746E-04 .1746E-04 .1792E-04 .1882E-04 .1927E-04 .1927E-04	k	N Pr .8233 .8126 .8038 .7963 .7963 .7847 .7801 .7724 .7692 .7663 .7636 .7588 .7565 .7568
247.6560 257.6560 257.6560 277.6560 277.6560 317.6560 317.6560 327.6560 337.6560 357.6560 357.6560 357.6560 367.6560 377.6560 377.6560 397.6560	V 11.1686 5.5832 5.1417 4.3038 3.1244 2.4486 1.7257 1.2031 9556 7615 6087 4882 3927 3169 2565	p .(122 .0165 .(222 .0297 .0396 .022 .(492	9.9132 h / RT 4.1451 4.6361 4.5360 4.7392 4.0454 5.2167 5.3515 5.5491 5.0917 6.6655 6.4226 6.035 6.73652	192.9078 a 126.1991 128.5135 130.7844 133.0141 135.2045 137.3574 139.4741 141.5562 145.6266 147.6050 149.5585 151.4819 153.3760 155.2413 157.0786 158.88888	7.0029 /R= 8.5000 Cp 4.4616 4.7559 4.6478 4.7374 4.9296 4.9492 5.0725 5.1506 5.2264 5.3715 5.4408 5.5031 5.733 5.6306 5.6980	1.1832 Y 1.1527 1.1491 1.1458 1.1427 1.1398 1.1327 1.1324 1.1302 1.1264 1.1233 1.1264 1.1233 1.1219 1.1207 1.1196 1.1196	1.1598 Y	.9760 Z .9996 .9995 .9995 .9994 .9998 .9987 .9987 .9982 .9979 .9968 .9968 .9968	.2964E-04	k .6712E-02 .7211E-02 .7710E-02 .8209E-02 .9207E-02 .9706E-02 .1021E-01 .1121E-01 .1121E-01 .1221E-01 .1271E-01 .1321E-01 .1321E-01 .1321E-01 .1321E-01 .1321E-01 .1321E-01	N Pr .8233 .8126 .8038 .7963 .7961 .7760 .7724 .7663 .7611 .7588 .7566 .7545 .7524
247.6560 257.6560 257.6560 277.6560 277.6560 277.6560 307.6560 317.6560 327.6560 337.6560 347.6560 357.6560 357.6560 367.6560 377.6560 377.6560 377.6560 377.6560	V 11.1686 8.5893 6.6332 5.1417 4.3034 2.4486 1.7254 1.7196 1.2031 9.7516 .6087 .4882 .3927 .3169 .2083	p .(122 .016) .(222 .0297 .0396 .0222 .(297 .0396 .1194 .(296 .1194 .2061 .2552 .3326 .4250 .421 .6888 .8719 1.0994	9.9132 h / RT 4.1451 4.2894 4.3361 4.3360 4.7392 5.2167 5.3815 5.5491 5.7191 5.0917 6.6665 6.4226 6.035 6.7652 6.4705	192.9078 a 126.1991 128.5135 130.7644 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 145.6206 147.6050 149.5585 151.4819 153.3760 155.2413 157.0766 158.8838 150.6728	7.0029 /R= 8.5000 C/R 4.4616 4.7559 4.6478 4.7374 4.0247 4.0247 6.9496 6.9496 5.1550 5.2264 5.3000 5.3715 5.4408 5.0081 5.0733 5.6306 6.6980 5.7577	1.1832 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1324 1.1263 1.1264 1.1233 1.1219 1.1219 1.1207 1.1167 1.1167	1.1598 Y 6 1.1524 1.1453 1.1453 1.1363 1.1337 1.1312 1.1269 1.1267 1.1266 1.1207 1.1189 1.1172 1.1156 1.1140 1.1140 1.1126	.9760 Z .9996 .9995 .9994 .9993 .9990 .9987 .9985 .9976 .9976 .9972	.2964E-04 µ .1311E-04 .1361E-04 .1411E-04 .1461E-04 .1558E-04 .1653E-04 .1699E-04 .1746E-04 .1746E-04 .1792E-04 .1882E-04 .1971E-04 .2015E-04 .2015E-04	k \(\cdot \	N Pr .8233 .8126 .8038 .7963 .7961 .7860 .7760 .7662 .7663 .7661 .7586 .7545 .7545 .75424
247.6560 257.6560 257.6560 267.6560 277.6560 307.6560 317.6560	V 11.1686	p .(122 .0165 .0222 .0297 .0396 .0524 .0492 .0496 .1196 .12562 .332C .4250 .4251 .6888 .8719 1.0994 1.3816	9.9132 h /RT 4.1461 4.2861 4.3361 4.3362 4.3392 4.3394 5.2167 5.3315 5.491 5.7171 5.0917 6.6665 6.035 6.7362 6.4736	192.9078 a 126.1991 128.5135 130.7644 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 145.6206 147.6050 149.5585 151.4819 153.3760 155.2413 157.0766 158.8888 160.6728	7.0029 /R = 8.5000 Cp 4.4616 4.7559 4.6478 4.7374 4.9096 4.9408 5.0725 5.1500 5.2264 5.3000 5.3715 5.4408 5.50980 5.7537 5.3157	1.1832 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1283 1.1264 1.1248 1.1248 1.1249 1.1207 1.1196 1.1167 1.1179	Y e 1.1524 1.1487 1.1453 1.1453 1.1391 1.1363 1.1337 1.1312 1.1267 1.1246 1.1227 1.1189 1.1172 1.1189 1.1172 1.1140 1.1140	2 .996 .9995 .9995 .9993 .9992 .9998 .9987 .9982 .9976 .9972 .9963 .9951 .9945	.2964E-04 µ .1311E-04 .1361E-04 .1411E-04 .1509E-04 .1653E-04 .1653E-04 .1746E-04 .1746E-04 .1792E-04 .1882E-04 .1927E-04 .2015E-04 .2015E-04	k 6712E-02 .7211E-02 .7710E-02 .8209E-02 .9706E-02 .9706E-02 .1021E-01 .1071E-01 .1121E-01 .1271E-01 .1271E-01 .1321E-01 .1371E-01 .1422E-01 .1472E-01 .1574E-01	N Pr .8233 .8126 .8038 .7963 .7963 .7760 .7724 .7692 .7663 .7663 .7663 .7663 .7545 .7545 .7524 .7524
247.6560 257.6560 257.6560 267.6560 277.6560 307.6560 317.6560 327.6560 337.6560 357.6560 357.6560 357.6560 367.6560 377.6560 377.6560 417.6560 417.6560 427.6560	. JC 52 V 11.1686 8.5832 5.1417 4.JU38 3.1244 2.4486 1.7257 1.2031 9.7615 6.087 4.882 3.927 3.169 2.2665 2.083 1.697 1.386	p .(122 .0165 .(222 .0297 .0396 .024 .(192 .0492 .0492 .0492 .0406 .1544 .2061 .2582 .3320 .4250 .5421 .6488 .8719 1.0994 1.3816 1.7283	9.9132 h / RT 4.1451 4.6361 4.5360 4.7392 4.0454 5.2167 5.5491 5.0917 6.0655 6.4226 6.0035 6.4226 6.73652 6.7652 6.7705 7.13632	192.9078 a 126.1991 128.5135 130.7644 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 145.6206 147.6050 149.5585 151.4819 153.3760 155.2413 157.0766 158.8838 150.6728	7.0029 /R= 8.5000 Cp 4.4616 4.7559 4.6478 4.7374 4.9272 5.0725 5.1506 5.2264 5.3000 7.3715 5.4408 5.5031 5.5036 5.7577 5.8157 5.8722	1.1832 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1324 1.1263 1.1264 1.1233 1.1219 1.1219 1.1207 1.1167 1.1167	1.1598 Y 6 1.1524 1.1453 1.1453 1.1363 1.1337 1.1312 1.1269 1.1267 1.1266 1.1207 1.1189 1.1172 1.1156 1.1140 1.1140 1.1126	.9760 Z .9996 .9995 .9994 .9993 .9990 .9987 .9985 .9976 .9976 .9972	.2964E-04 µ .1311E-04 .1361E-04 .1411E-04 .1461E-04 .1558E-04 .1653E-04 .1699E-04 .1746E-04 .1746E-04 .1792E-04 .1882E-04 .1971E-04 .2015E-04 .2015E-04	k \(\cdot \	N Pr .8233 .8126 .8038 .7963 .7961 .7860 .7760 .7662 .7663 .7661 .7586 .7545 .7545 .75424
247.6560 257.6560 257.6560 267.6560 277.6560 297.6560 317.6560	. JC52 V 11.1686 8.5832 5.1417 4.JC244 2.44267 1.J196 1.2031 9.76187 4.882 3.927 3.169 2.2083 1.697 1.386 1.137 1.9935	p .(122 .0165 .(222 .0297 .0396 .(224 .(692 .(1196 .1544 .2061 .2552 .4250 .4250 .4250 .4250 .4250 .4250 .4250 .4250 .4250 .421 .6888 .8719 1.0994 1.5816 1.7263 2.1147	9.9132 h / RT 4.1461 4.2894 4.3361 4.5360 4.7392 4.0194 5.2167 5.3815 5.2491 5.2917 6.0665 6.0035 6.4226 6.4705 7.1263 7.3432 7.7200	192.9078 a 126.1991 128.5135 130.7644 133.0141 139.2045 137.3574 139.4741 141.5562 143.6045 145.6226 147.6050 149.5585 151.4819 153.3760 155.22413 157.0766 158.8838 150.6728 162.4319 164.1676 165.8822 167.5781	7.0029 /R= 8.5000 Cp R 4.4616 4.7559 4.6478 4.7374 4.9247 4.9296 4.9422 5.0725 5.1530 5.2264 5.2264 5.2766 5.266 5.3715 5.4458 5.5081 5.733 5.6386 5.7977 5.8722 5.98115 7.9811	1.1832 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1302 1.1283 1.1264 1.1248 1.1233 1.1219 1.1207 1.1179 1.1179 1.1179 1.1179 1.1167 1.1167	1.1598 Y e 1.1524 1.1467 1.1453 1.1337 1.1363 1.1337 1.1312 1.1267 1.1267 1.1267 1.1126 1.1207 1.1119 1.1172 1.1196 1.11100 1.1089 1.1079	.9760 Z .9996 .9995 .9994 .9992 .9987 .9987 .9987 .9987 .9976 .9976 .9968 .9957 .9968 .9957 .9951	.2964E-04 .1311E-04 .1361E-04 .1411E-04 .1508E-04 .1508E-04 .1653E-04 .1653E-04 .1792E-04 .1882E-04 .1927E-04 .1927E-04 .2015E-04 .2015E-04 .2015E-04	k .6712E-02 .7211E-02 .7211E-02 .8209E-02 .8209E-02 .9706E-02 .9706E-02 .1021E-01 .1171E-01 .1171E-01 .1221E-01 .1271E-01 .1321E-01 .1321E-01 .1321E-01 .1371E-01 .1422E-01 .1472E-01 .1574E-01 .1574E-01 .1625E-01 .1677E-01	NPr .8233 .8126 .8038 .7961 .77800 .7724 .7693 .7663 .7618 .75645 .75504 .7544
247.6560 257.6560 257.6560 267.6560 277.6560 317.6560 317.6560 327.6560 337.6560 357.6560 357.6560 367.6560 377.6560 377.6560 377.6560 407.6560 407.6560 427.6560 427.6560 427.6560 447.6560	. JC 52 V 11.1686 5.5832 5.1417 4.3038 3.1244 2.4486 1.7257 1.2031 9.556 7.615 6087 1.386 1.137 0.935 . U771	p .c122 .c122 .c125 .c227 .c346 .c222 .c247 .c346 .c194 .c194 .c194 .c250 .c25	9.9132 h / RT 4.1451 4.6391 4.6361 4.5360 4.7392 4.05491 5.7191 5.7191 5.0917 6.0655 6.4226 6.0035 6.4226 6.0035 7.15632 7.7200 7.15632 7.7200 7.9095	192.9078 8 126.1991 128.5135 136.7644 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 145.6206 147.6050 149.5585 151.4819 153.33760 155.2413 157.0766 158.88888 160.6728 162.4317 164.1676 165.8622 167.5781 167.5781	7.0029 /R= 8.5000 Cp 4.4616 4.7559 4.6478 4.7374 4.9247 6.9479 6.9496 6.9926 7.3715 7.4408 7.3715 7.4408 7.3715 7.4536 7.577 7.3157 7	1.1832 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1264 1.1268 1.1219 1.1219 1.1219 1.1219 1.1167 1.1173 1.1169 1.1166 1.1166	1.1598 Y e 1.1524 1.1453 1.1421 1.1391 1.1363 1.1337 1.1312 1.1269 1.1266 1.1266 1.1216 1.1150 1.1150 1.1160 1.1160 1.1160 1.1089 1.1079 1.1079	.9760 Z .9995 .9995 .9994 .9992 .9987 .9982 .9976 .9968 .9976 .9968 .9968 .9957 .9968 .9957 .9968	.2964E-04	k .6712E-02 .7211E-02 .7711E-02 .8209E-02 .8708E-02 .9207E-02 .9207E-01 .1071E-01 .1171E-01 .1171E-01 .121E-01 .1271E-01 .1271E-01 .1271E-01 .1271E-01 .1472E-01 .1472E-01 .1523E-01 .1574E-01 .1625E-01 .1625E-01 .1625E-01 .1728E-01 .1728E-01	N Pr 8233 8126 8038 .7963 .7961 .77696 .7618 .7618 .7566 .7518 .7524 .7486 .7486 .7486 .7486 .7447 .7486 .7447 .7486 .7447 .7486 .7447 .7486 .7447
247.6560 257.6560 257.6560 267.6560 277.6560 317.6560	V 11.1686	p .(122 .0165 .0222 .0297 .0396 .0524 .0421 .0421 .0582 .0421 .0888 .0719 1.0994 1.3810 1.7263 2.11447 2.6759 3.3105 4.0794	9.9132 h /RT 4.1461 4.2894 4.3361 4.3362 4.3392 4.3392 4.3491 5.2167 5.3412 5.491 5.2435 6.4226 6.035 6.7362 6.4705 7.363 7.3432 7.7200 7.9095 8.09993	192.9078 a 126.1991 128.5135 130.7644 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 149.5585 149.5585 151.4819 153.3760 155.2413 157.0756 158.8838 150.6728 162.4319 164.1676 165.8822 167.5781 169.2589 170.9288	7.0029 /R = 8.5000 Cp 4.4616 4.7559 4.6478 4.7374 4.9247 4.9247 4.9226 5.0725 5.1500 5.2264 5.3000 5.3715 5.4408 5.5098 5.5098 5.56980 5.7577 5.8722 5.9273 5.98115 6.0859	1.1832 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1283 1.1264 1.1283 1.1264 1.1283 1.1219 1.1207 1.1167 1.1167 1.1169 1.1167 1.1168 1.1168 1.1168	1.1598 Y e 1.1524 1.1467 1.1453 1.1391 1.1363 1.1337 1.1312 1.1266 1.1226 1.1246 1.1226 1.11207 1.1140 1.1140 1.1140 1.1100 1.1009 1.1079 1.1071 1.1005	.9760 Z .9995 .9995 .9995 .9993 .9992 .9987 .9982 .9982 .9982 .9963 .9951 .9963 .9951 .9945 .9951 .9945 .9951 .9945	.2964E-04	k 6712E-02 .7211E-02 .7211E-02 .8209E-02 .8209E-02 .9706E-02 .9706E-02 .1021E-01 .1071E-01 .1121E-01 .1121E-01 .1121E-01 .1221E-01 .1221E-01 .1321E-01 .1321E-01 .1321E-01 .1422E-01 .1472E-01 .1472E-01 .1574E-01 .1625E-01 .177E-01 .1728E-01 .1780E-01 .1833E-01	NPr -8233 -8128 -7963 -7961 -7724 -7693 -7663 -7631 -7564 -7564 -7564 -7484 -7467 -7428 -7411
247.6560 257.6560 257.6560 267.6560 277.6560 317.6560 317.6560 317.6560 337.6560 337.6560 357.6560 357.6560 367.6560 377.6560 407.6560	. JC 52 V 11.1686 b.5832 5.1417 4.JCJ8 3.1244 2.4486 1.7196 1.2031 . 7615 . 6087 . 4882 . 3927 . 3169 . 2585 . 2083 . 1087 . 1386 . 1137 . 0737 . 0739 . 0531	p .c122 .c122 .c125 .c227 .c346 .c222 .c247 .c346 .c194 .c194 .c194 .c250 .c25	9.9132 h / RT 4.1451 4.6391 4.6361 4.5360 4.7392 4.05491 5.7191 5.7191 5.0917 6.0655 6.4226 6.0035 6.4226 6.0035 7.15632 7.7200 7.15632 7.7200 7.9095	192.9078 8 126.1991 128.5135 136.7644 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 145.6206 147.6050 149.5585 151.4819 153.33760 155.2413 157.0766 158.88888 160.6728 162.4317 164.1676 165.8622 167.5781 167.5781	7.0029 /R= 8.5000 Cp 4.4616 4.7559 4.6478 4.7374 4.9247 6.9479 6.9496 6.9926 7.3715 7.4408 7.3715 7.4408 7.3715 7.4536 7.577 7.3157 7	1.1832 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1264 1.1268 1.1219 1.1219 1.1219 1.1219 1.1167 1.1173 1.1169 1.1166 1.1166	1.1598 Y e 1.1524 1.1453 1.1421 1.1391 1.1363 1.1337 1.1312 1.1269 1.1266 1.1266 1.1216 1.1150 1.1150 1.1160 1.1160 1.1160 1.1089 1.1079 1.1079	.9760 Z .9995 .9995 .9994 .9992 .9987 .9982 .9976 .9968 .9976 .9968 .9968 .9957 .9968 .9957 .9968	.2964E-04	k .6712E-02 .7211E-02 .7711E-02 .8209E-02 .8708E-02 .9207E-02 .9207E-01 .1071E-01 .1171E-01 .1171E-01 .121E-01 .1271E-01 .1271E-01 .1271E-01 .1271E-01 .1472E-01 .1472E-01 .1523E-01 .1574E-01 .1625E-01 .1625E-01 .1625E-01 .1728E-01 .1728E-01	N Pr 8233 8126 8038 .7963 .7961 .77696 .7618 .7618 .7566 .7518 .7524 .7486 .7486 .7486 .7486 .7447 .7486 .7447 .7486 .7447 .7486 .7447 .7486 .7447
247.6560 257.6560 257.6560 267.6560 277.6560 317.6560	. JC 52 V 11.1646 b.5832 5.1417 4.30244 2.44857 1.2196 1.2031 2036 76187 4.8827 3927 25683 1697 1386 1137 0935 07631 07639 0531 0443	p .(122 .0165 .0222 .0297 .0396 .024 .0424 .0492 .0496 .1196 .1544 .2061 .2562 .3320 .4250	9.9132 h / RT 4.1461 4.2894 4.4361 4.5360 4.7392 4.0154 5.2167 5.3815 5.4917 5.6917 6.2435 6.4226 6.47362 6.7362 7.3432 7.3432 7.3312 7.7200 7.9095 8.2893 8.4792 8.6687	192.9078 a 126.1991 128.5135 130.7644 133.0141 139.2045 137.3574 139.4741 141.5562 143.6045 149.5620 149.5620 149.5620 150.6206 158.8888 157.0766 158.8888 150.6728 164.1676 165.8822 167.5781 169.2588 172.5932 174.2288	7.0029 /R = 8.5000 Cp R 4.4616 4.7559 4.6478 4.7374 4.92247 4.9225 5.0725 5.1506 5.2264 5.3000 5.3715 5.4408 5.7331 5.733 5.6980 5.7577 5.8722 5.97273 5.9811 5.0339 6.0859 6.1872 6.1880 5.2387	1.1832 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1302 1.1283 1.1264 1.1283 1.1297 1.1196 1.1167 1.1179 1.1169 1.1169 1.1169 1.1168 1.1168 1.1168 1.1168 1.1179 1.1168 1.1179 1.1188 1.1179 1.1188 1.1179	1.1598 Y e 1.1524 1.1467 1.1453 1.1337 1.1332 1.1269 1.1267 1.1264 1.1267 1.1264 1.1267 1.1219 1.1172 1.1196 1.1100 1.1100 1.1005 1.1005 1.1005 1.1005 1.1005 1.1005	.9760 Z .9995 .9995 .9995 .9998 .9987 .9987 .9987 .9976 .9976 .9977 .9963 .9957 .9957 .9957 .9957 .9957 .9957 .9957 .9957 .9957 .9957 .9957 .9963 .9957 .995	.2964E-04	k 6712E-02 .7211E-02 .7211E-02 .8209E-02 .8209E-02 .9706E-02 .9706E-02 .1021E-01 .1171E-01 .1121E-01 .1271E-01 .1271E-01 .1271E-01 .1271E-01 .1321E-01 .1321E-01 .1472E-01 .1472E-01 .1574E-01 .1574E-01 .1625E-01 .1728E-01 .1728E-01 .17380E-01 .1833E-01 .1833E-01 .1833E-01 .1833E-01	NPr .8233 .8128 .7963 .7847 .78760 .7724 .7663 .76631 .75645 .75645 .75645 .75647 .7467 .7467 .7428 .7428 .7437
247.6560 257.6560 257.6560 277.6560 277.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 417.6560	. JC 52 V 11.1686 b.5832 5.1417 4.JUJ8 3.1244 2.4486 1.7196 1.2031 . 7615 . 6082 . 3927 . 4882 . 3927 . 1386 . 1137 . 0371 . 0371 . 0311	p .(122 .0165 .(222 .0297 .0396 .024 .(292 .0492 .0492 .0492 .0406 .1544 .2061 .2582 .3320 .4250 .4250 .4250 .4250 .4250 .4274 .5816 .7823 .1547 .6759 3.3105 4.7794 5.0669 6.1205 7.4509	9.9132 h / RT 4.1451 4.6361 4.5360 4.7392 4.0454 5.2167 5.5491 5.0917 6.2655 6.4226 6.0352 7.3232 7.3232 7.3232 7.2200 7.9095 8.2893 8.4792 8.6587 8.8576	192.9078 a 126.1991 128.5135 136.7844 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 145.6266 147.6050 149.5585 151.4819 153.3760 155.2413 157.0786 158.8888 150.6728 162.4319 165.8822 167.5781 169.2549 170.9288 175.9335 177.6270	7.0029 /R= 8.5000 Cp R 4.4616 4.75578 4.7374 4.9247 4.9478 4.9478 4.9478 5.2264 5.3715 5.26408 5.3715 5.4408 5.5091 5.733 5.6306 5.7577 5.8152 5.9811 5.0339 6.0359 6.1372 6.1880 5.2387	1.1832 1.1527 1.1491 1.1491 1.1498 1.1398 1.1327 1.1398 1.1283 1.1264 1.1283 1.1219 1.1293 1.1219 1.1196 1.1167 1.1173 1.1169 1.1167 1.1168 1.1179 1.1168 1.1179 1.1168 1.1179 1.1168 1.1179 1.1168 1.1179 1.1188 1.1201 1.1201 1.1201	1.1598 Y	.9760 Z .9996 .9995 .9994 .9992 .9987 .9982 .9979 .9968 .9968 .9968 .9969 .9957 .9951 .9957 .9951 .9945 .9957 .9951 .9988 .9888 .9888	.2964E-04	k .6712E-02 .7211E-02 .7710E-02 .8209E-02 .8708E-02 .9207E-02 .9704E-01 .1071E-01 .1171E-01 .1121E-01 .1271E-01 .1371E-01 .1472E-01 .1574E-01 .1574E-01 .1625E-01 .1677E-01 .1780E-01 .1833E-01 .1780E-01 .1836E-01 .1939E-01 .1939E-01 .1949E-01	NPP 8233 8126 8963 7963 77806 77624 76963 76636 76566 75566 75564 74667 74428 74428 74362 73362
247.6560 257.6560 257.6560 277.6560 277.6560 277.6560 317.6560 317.6560 327.6560 337.6560 347.6560 347.6560 347.6560 347.6560 347.6560 427.6560 427.6560 427.6560 427.6560 427.6560 427.6560 437.6560 447.6560 447.6560 477.6560 477.6560 477.6560 507.6560 507.6560 507.6560	. JC 52 V 11.1686 5.5832 5.14178 3.1244 2.44867 1.7196 1.2031 97615 6087 4882 3927 31665 2083 1697 1137 07771 0639 0531 0443 0371 0263	P .(122 .0165 .0222 .0297 .0396 .0124 .0492 .0496 .1194 .2502 .3320 .4250 .421 .6888 .8719 1.0994 1.810 1.7263 2.1147 2.6759 3.3105 4.6794 5.0069 6.1205 7.4509	9.9132 h / RT 4.1451 4.6391 4.6390 4.7392 4.6546 5.2151 5.5491 5.7191 5.6917 6.6665 6.4226 6.6035 6.4226 6.6035 6.7362 7.1263 7.7200 7.1263 7.7200 7.1263 7.7200 8.0393 8.4792 8.6687 8.8576 7.6457	192.9078 a 126.1991 128.5135 136.7644 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 145.6266 147.6050 147.6050 152.1431 157.0766 158.8884 150.6728 162.4317 164.1676 165.8622 167.5781 167.5788 172.5932 174.2258 175.9335 177.6270	7.0029 /R= 8.5000 Cp R 4.4616 4.2578 4.6478 4.0247 4.0247 4.0247 4.025 5.0725 5.15300 5.2264 5.3000 5.3715 5.4408 5.5081 5.0833 5.6306 5.6980 5.7577 5.8722 5.9273 5.9811 5.0339 6.0859 6.1372 6.1880 6.2387 6.2894 6.3404	1.1832 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1324 1.1264 1.1283 1.1219 1.1207 1.1167 1.1167 1.1168 1.1173 1.1168 1.1179 1.1168 1.1179 1.1179 1.1168 1.1179 1.1168 1.1179 1.1188 1.1201 1.1216 1.1201 1.1216 1.1201 1.1216 1.12216 1.12216 1.12216 1.12216 1.12216	1.1598 Y e 1.1524 1.1467 1.1453 1.1391 1.1363 1.1337 1.1312 1.1266 1.1246 1.12267 1.1140 1.1172 1.1140 1.1140 1.1100 1.1005 1.1005 1.1005 1.1005 1.1005 1.10067 1.10067 1.10778	.9760 Z .9995 .9995 .9994 .9993 .9999 .9987 .9988 .9976 .9968 .9967 .9968 .9967 .9968 .9967 .9968 .9967 .9968 .9988 .9876 .9888	.2964E-04	k .6712E-02 .72110E-02 .77110E-02 .8708E-02 .8708E-02 .9207E-02 .9207E-02 .1021E-01 .1171E-01 .1171E-01 .1171E-01 .121E-01 .1271E-01 .1271E-01 .1271E-01 .1371E-01 .1472E-01 .1472E-01 .1574E-01 .1574E-01 .1574E-01 .1728E-01	NPr -8233 -8126 -8126 -8126 -7963 -7963 -7631 -7636 -7636 -7524 -75524 -7467 -74428 -74428 -74428 -74428 -74428 -74373 -73435 -7323
588.3889 247.6560 257.6560 257.6560 277.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 407.6560 407.6560 407.6560 407.6560 407.6560 407.6560 407.6560 407.6560 407.6560 407.6560 407.6560 407.6560 407.6560 407.6560 407.6560 407.6560	. JC 52 V 11.16 #6 8.5832 5.14108 3.1244 2.44257 1.7196 1.20316 .76187 .4882 .3927 .13169 .2583 .1697 .1386 .1137 .0931 .07739 .0531 .03471 .0311 .0263 .0223	p .(122 .0165 .0222 .0297 .0396 .0524 .0692 .0546 .1176 .1544 .2061 .2552 .4250 .5421 .6888 .8719 1.0994 1.5816 1.7263 2.1147 2.6759 3.3105 4.794 5.0069 6.1205 7.4509 9.0325 10.9036 13.1055	9.9132 h / RT 4.1461 4.2894 4.3361 4.5360 4.7392 4.0154 5.2167 5.3815 5.2491 5.2917 6.0665 6.4026 6.4705 6.4226 6.4705 8.4702 7.7200 7.9095 8.2893 8.4687 8.8576 7.12432 6.4702	192.9078 a 126.1991 128.5135 130.7644 133.0141 139.2045 137.3574 139.4774 139.4774 141.5562 143.6045 149.5620 149.5630 157.0766 158.8838 150.6728 162.4317 164.1676 165.88622 167.5781 169.2593 174.2583 175.6270 177.3502	7.0029 /R= 8.5000 Cp R 4.4616 4.7559 4.6478 4.7374 4.9247 4.9296 2.1506 2.264 4.9422 5.0725 2.1506 2.264 6.3715 2.474 6.2894 6.3806 6.2387 6.2894 6.3894	1.1832 1.1527 1.1491 1.1491 1.1498 1.1398 1.1327 1.1398 1.1283 1.1264 1.1283 1.1219 1.1293 1.1219 1.1196 1.1167 1.1173 1.1169 1.1167 1.1168 1.1179 1.1168 1.1179 1.1168 1.1179 1.1168 1.1179 1.1168 1.1179 1.1188 1.1201 1.1201 1.1201	1.1598 Y	.9760 Z .9996 .9995 .9994 .9992 .9987 .9982 .9979 .9968 .9968 .9968 .9969 .9957 .9951 .9957 .9951 .9945 .9957 .9951 .9988 .9888 .9888	.2964E-04	k .6712E-02 .7211E-02 .7710E-02 .8209E-02 .8708E-02 .9207E-02 .9704E-01 .1071E-01 .1171E-01 .1121E-01 .1271E-01 .1371E-01 .1472E-01 .1574E-01 .1574E-01 .1625E-01 .1677E-01 .1780E-01 .1833E-01 .1780E-01 .1836E-01 .1939E-01 .1939E-01 .1949E-01	NPP 8233 8128 8128 7961 77860 77847 78060 77524 76636 7618 75565 75564 75665 75440 7467 74428 74428 74428 74335 73323 73323
247.6560 257.6560 257.6560 277.6560 277.6560 277.6560 317.6560 317.6560 327.6560 337.6560 347.6560 347.6560 347.6560 347.6560 347.6560 427.6560 427.6560 427.6560 427.6560 427.6560 427.6560 437.6560 447.6560 447.6560 477.6560 477.6560 477.6560 507.6560 507.6560 507.6560	. JC 52 V 11.1686 5.5832 5.14178 3.1244 2.44867 1.7196 1.2031 97615 6087 4882 3927 31665 2083 1697 1137 07771 0639 0531 0443 0371 0263	p .(122 .0165 .0222 .0297 .0396 .0524 .0692 .0696 .1196 .1544 .2001 .2562 .332C .4250 .4421 .6888 .8719 1.0994 1.8816 1.7263 2.1547 2.6759 3.3105 4.7794 5.0069 9.0325 10.9030 13.1055 10.6818 18.6610	9.9132 h / RT 4.1461 4.2894 4.4361 4.5360 4.3392 4.0394 5.2167 5.3815 5.491 5.2167 6.6655 6.4226 6.4705 7.3432 7.7200 7.9095 8.2893 8.4792 8.8576 9.4183 9.6024	192.9078 a 126.1991 128.5135 136.7644 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 145.6206 147.6050 149.5585 151.4819 153.3760 155.22413 157.0766 158.8848 150.6728 164.1676 165.8822 174.2588 175.9335 177.6270 177.32502 181.1159 182.9334 184.9332	7.0029 /R = 8.5000 Cp R 4.4616 4.7569 4.6478 4.7374 4.9247 4.9296 4.9496 5.0725 5.1500 5.2264 5.33715 5.4408 5.7577 5.8725 5.9411 5.0339 6.0859 6.1872 6.1880 6.3840	1.1832 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1283 1.1264 1.1283 1.1264 1.1283 1.1279 1.1167 1.1167 1.1168 1.1168 1.1168 1.1179 1.1168 1.1179 1.1168 1.1179 1.1188 1.1179 1.1188 1.1219 1.1216 1.1216 1.1225 1.1225 1.12284 1.12284 1.1231	1.1598 Y e 1.1524 1.1467 1.1453 1.1391 1.1363 1.1337 1.1312 1.1267 1.1246 1.12267 1.1246 1.12207 1.1189 1.1172 1.1100 1.1126 1.11001 1.1067 1.1061 1.1065 1.1061 1.1067 1.1068 1.1078 1.1078 1.1078 1.1078 1.1078 1.1078 1.1078 1.1078 1.1078	.9760 Z .99955 .9995 .9995 .9997 .9987 .9987 .9987 .9987 .9976 .9976 .9977 .9963 .9957 .99	.2964E-04	k 6712E-02 .7211E-02 .7211E-02 .8209E-02 .8209E-02 .9706E-02 .9706E-02 .1021E-01 .1071E-01 .1121E-01 .1121E-01 .1221E-01 .1241E-01 .1242E-01 .1422E-01 .1472E-01 .1574E-01 .1625E-01 .1780E-01 .1780E-01 .1780E-01 .1780E-01 .1780E-01 .1780E-01 .1780E-01 .1780E-01 .1794E-01 .1833E-01 .18366E-01 .1994E-01 .2049E-01 .2104E-01 .2104E-01	NPP -8233 -81028 -79631 -78760 -7724 -76631 -76631 -7564 -7564 -7564 -7564 -7465 -7467 -7467 -7468 -7488 -7411 -73762 -73848 -7313 -7309
247.6560 257.6560 257.6560 277.6560 277.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 407.6560	. JC 52 V 11.1686	p .(122 .0165 .(222 .0297 .0396 .0224 .(692 .096 .1176 .1544 .2061 .2552 .4250 .9421 .6488 .8719 1.0994 1.5916 1.7283 2.1547 2.6759 3.3105 4.6794 5.069 6.1205 7.4509 9.0325 10.9030 13.1655 15.6818 18.6810 22.1540	9.9132 h / RT 4.1461 4.6340 4.6340 4.6340 4.6340 5.2167 5.3415 5.2491 5.2491 5.2497 6.62435 6.4226 6.035 6.4226 6.035 8.4792 7.7200 7.9095 8.0793 8.4792 8.6876 7.6220 9.4183 9.6024 9.7847	192.9078 a 126.1991 128.5135 136.7644 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 145.6266 147.6050 149.5585 151.4819 153.3760 155.26413 157.0766 158.8858 157.0776 165.8822 164.24319 169.2549 170.9288 172.938 177.6270 177.3502 181.1159 182.9384 184.8332 186.8170	7.0029 /R= 8.5000 Cp R 4.4616 4.7559 4.6478 4.7374 4.9247 4.9296 5.0725 5.1536 5.2264 5.3715 5.4081 5.733 5.6366 5.6980 5.7577 5.8722 5.9811 5.0339 6.0486 6.2387 5.2894 6.3494 6.3494 6.3494 6.3491 6.4441 6.55514	1.1832 1.1527 1.1491 1.1458 1.1471 1.1398 1.1371 1.1324 1.1302 1.1283 1.1264 1.1248 1.1233 1.1219 1.1207 1.1173 1.1166 1.1167 1.1167 1.1168 1.1179 1.1168 1.1179 1.1168 1.1179 1.1168 1.1179 1.1168 1.1179 1.1188 1.1201 1.1235 1.1201 1.1235 1.1201 1.1235 1.1201 1.1235 1.1235 1.1235 1.1244 1.1314 1.1314	1.1598 Y	.9760 Z .9995 .9995 .9994 .9993 .9998 .9987 .9987 .9987 .9963 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .995	.2964E-04	k .6712E-02 .7710E-02 .8209E-02 .8708E-02 .9707E-02 .9706E-02 .9706E-02 .1021E-01 .1171E-01 .1121E-01 .1221E-01 .1271E-01 .1221E-01 .1271E-01 .1221E-01 .1271E-01 .1221E-01 .1371E-01 .1472E-01 .1472E-01 .1574E-01 .1625E-01 .1780E-01 .1780E-01 .1780E-01 .1780E-01 .1794E-01 .1994E-01 .2049E-01 .2104E-01 .2219E-01 .2219E-01	NPP 8233 8126 8033 7961 77806 77806 77806 7636 7636 75566 7566 7566 7566 7566 75
588.3849 T 247.6560 257.6560 277.6560 317.6560 317.6560 327.6560 357.6560 357.6560 367.6560 377.6560 407.6560	. JC 52 V 11.1686 5.5832 5.1417 4.3034 2.4486 1.7256 1.2031 . 75615 . 6082 . 7615 . 6882 . 3927 . 3165 . 2083 . 1697 . 1386 . 1137 . 07771 . 0633 . 03711 . 0263 . 02189 . 0162 . 01189 . 0120	P .(122 .0165 .0222 .0247 .0346 .0522 .0247 .0346 .1544 .2061 .2582 .3320 .4250 .5421 .6888 .8719 1.0994 1.3810 1.7283 2.1547 2.6759 3.3105 4.7794 5.0669 6.1205 7.4509 9.0325 10.9030 13.1656 15.6818 18.6810 22.1540	9.9132 h / RT 4.1451 4.6361 4.6360 4.7392 4.6546 5.2167 5.3515 5.5491 5.7171 6.6635 6.4226 6.035 6.4226 6.035 6.4226 7.43632 7.4312 7.72312	192.9078 8 126.1991 128.5135 136.7644 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 145.6266 147.6050 149.5585 121.4481 157.0786 158.88888 150.6728 162.4319 164.1676 165.8022 167.5781 167.2589 170.9288 172.5938 175.6270 175.9335 177.6270 175.33502 181.1159 182.9384 184.8332 186.8170 189.9071	7.0029 /R = 8.5000 Cp 4.4616 4.75578 4.7374 4.9247 4.9425 5.15300 5.2264 5.3000 7.3715 5.4408 5.5081 7.7333 7.6306 7.7577 7.81572 7.9213 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81572 7.98157 7.81577 7.81572 7.98157 7.81572 7.98157 7.81577 7.81572 7.98157 7.81577 7.81572 7.98157 7.8157 7.8157	1.1832 1.1527 1.1491 1.1458 1.1427 1.1398 1.1371 1.1347 1.1324 1.1264 1.1268 1.1219 1.1207 1.1167 1.1167 1.1168 1.1173 1.1168 1.1179 1.1173 1.1168 1.1179 1.1173 1.1168 1.1179 1.1179 1.1173 1.1168 1.1179 1.1188 1.1201 1.1255 1.1255 1.1255 1.1256 1.1314 1.1349 1.1349 1.1349 1.1349 1.1349 1.1349 1.1349 1.1349 1.1349 1.1349 1.1349 1.1349 1.13887	1.1598 Y	.97 Z .9955 .9995 .9994 .9995 .9998 .9998 .9988 .9986 .9986 .99857 .9968 .9995 .9968 .9968 .9967 .9968 .9995 .9995 .99857 .99884 .9884	.2964E-04	.2585E-01 k .6712E-02 .7211E-02 .7710E-02 .8708E-02 .8708E-02 .9707E-02 .9706E-02 .1021E-01 .1171E-01 .1171E-01 .1171E-01 .1271E-01 .1371E-01 .1472E-01 .1574E-01 .1574E-01 .1574E-01 .1523E-01 .1625E-01 .1625E-01 .1636E-01 .1728E-01 .2194E-01 .2219E-01 .2219E-01 .2219E-01 .2219E-01 .2219E-01	N P : 8233 8 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1
247.6560 257.6560 257.6560 277.6560 277.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 317.6560 407.6560	. JC 52 V 11.1686	p .(122 .0165 .(222 .0297 .0396 .0224 .(692 .096 .1176 .1544 .2061 .2552 .4250 .9421 .6488 .8719 1.0994 1.5916 1.7283 2.1547 2.6759 3.3105 4.6794 5.069 6.1205 7.4509 9.0325 10.9030 13.1655 15.6818 18.6810 22.1540	9.9132 h / RT 4.1461 4.6340 4.6340 4.6340 4.6340 5.2167 5.3415 5.2491 5.2491 5.2497 6.62435 6.4226 6.035 6.4226 6.035 8.4792 7.7200 7.9095 8.0793 8.4792 8.6876 7.6220 9.4183 9.6024 9.7847	192.9078 a 126.1991 128.5135 136.7644 133.0141 135.2045 137.3574 139.4741 141.5562 143.6045 145.6266 147.6050 149.5585 151.4819 153.3760 155.26413 157.0766 158.8858 157.0776 165.8822 164.24319 169.2549 170.9288 172.938 177.6270 177.3502 181.1159 182.9384 184.8332 186.8170	7.0029 /R= 8.5000 Cp R 4.4616 4.7559 4.6478 4.7374 4.9247 4.9296 5.0725 5.1536 5.2264 5.3715 5.4081 5.733 5.6366 5.6980 5.7577 5.8722 5.9811 5.0339 6.0486 6.2387 5.2894 6.3494 6.3494 6.3494 6.3491 6.4441 6.55514	1.1832 1.1527 1.1491 1.1458 1.1471 1.1398 1.1371 1.1324 1.1302 1.1283 1.1264 1.1248 1.1233 1.1219 1.1207 1.1173 1.1166 1.1167 1.1167 1.1168 1.1179 1.1168 1.1179 1.1168 1.1179 1.1168 1.1179 1.1168 1.1179 1.1188 1.1201 1.1235 1.1201 1.1235 1.1201 1.1235 1.1201 1.1235 1.1235 1.1235 1.1244 1.1314 1.1314	1.1598 Y	.9760 Z .9995 .9995 .9994 .9993 .9998 .9987 .9987 .9987 .9963 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .9951 .9957 .995	.2964E-04	k .6712E-02 .7710E-02 .8209E-02 .8708E-02 .9707E-02 .9706E-02 .9706E-02 .1021E-01 .1171E-01 .1121E-01 .1221E-01 .1271E-01 .1221E-01 .1271E-01 .1221E-01 .1271E-01 .1221E-01 .1371E-01 .1472E-01 .1472E-01 .1574E-01 .1625E-01 .1780E-01 .1780E-01 .1780E-01 .1780E-01 .1794E-01 .1994E-01 .2049E-01 .2104E-01 .2219E-01 .2219E-01	NPP 8233 8126 8033 7961 77806 77806 77806 7636 7636 75566 7566 7566 7566 7566 75

TABLE III. - Continued

S/R= 9.0000											
T	٧	р	h∠RT	a	c _p /R	γ	γ _e	Z	μ	k	N _{Pr}
280.4503	11.1717	.(138	4.0290	133.6606	4.7612	1.1417	1.1415	.9396	.1474E-04	.8347E-02	.7944
293.4503	n.7014	·C194	4.7532	135.8473	4.5476	1.1389	1.1306	. 4496	.1523E-04	.8846E-02	. 7884
300.4503	c.8014	.0243	4.9434	137.9975	+.9316	1.1362	1.1359	.9396	.1571E-04	. 4344E-02	.7833
310.4503	5.3350 4.1991	.0320	5.1336	140.1139 142.1975	J. 0133 5.0926	1.1337 1.1314	1.1333	.9995 .9994	.1014E-04	.9843E-02	.7788 .7745
326.4593 330.4593	3.3161	•(426 •6549	5.2638 5.4297	144.2493	2.1696	1.1293	1.1309	. 9993	.1712t-04	.1034E-01	.7713
340.4503	2.5273	.0713	2.5933	145.2719	J. 2443	1.1273	1.1206	.9992	.1758E-04	·1434E-01	.7682
350.4503	2.0662	.0924	5.7696	147.2651	7.3166	1.1254	1.1246	.9991	.1804E-04	·1184E-01	.7653
363.4503	1.ot50	.11+2	5.4433	150.2303	J. 3867	1.1237	1.1227	9990	.1849t-04	·1234E-01	. 7026
370.4503	1.3316	.1531	6.1195	152.1665	2.4945	1.1221	1.1209	.9958	.1894E-04	·12d4E-01	.7601
380.4503	1.0604	.1954	5.2440	154.0865	う・シといひ	1.1206	1.1193	.9987	.1938E-04	.1334E-01	.7577
390.4503	. 1597	.2444	6.4736	155.9073	o.5634	1.1192	1.1177	.9935	.1962E-04	.1304E-01	. 7523
400.4503	• 5438	.3174	6.6613	157.8295	2.6445	1.1180	1.1162	.9983	.2025E-04	1434E-01	.7531
410.4503	.5616	.4018	5.8450	159.6682	2.7035	1.1169	1.1148	.9940	2069E-04	.1484E-01	.7509
420.4503	.4560	•5C69	7.6325 7.2297	151.4841	5.7503	1.1159 1.1150	1.1135	.9977	.2111E-04 .2154E-04	.1535E-01 .1585E-01	.7487 .7465
436.4503	. 3713	.6371		163.2703	2.8151		1.1123	.9974			
440.4503	. 30 32	.7986 .9961	7.4135 7.6017	165.0518 166.8059	5.8579 5.9188	1.1142	1.1111	.9971 .9968	-2196E-04	-1635E-01	•7443 •7421
450.4503 460.4503	.2484 .2040	1.2389	7.7942	168.5421	5.4576	1.1130	1.1101	. 4964	.2237c-04 .2279E-04	.1686E-01 .1737E-01	.7398
470.4503	.1681	1.5357	7.9878	170.2622	5.0151	1.1126	1.1063	. 4960	.2320L-04	.1757E-01	.7376
480.4503	.1307	1.6959	9.1924	171.9604	5.0606	1.1124	1.1075	.9955	.2361E-04	.1638E-G1	.7353
470.4503	.1152	2.3350	8.3779	173.6635	0.1346	1.1123	1.1969	. 4951	.2402E-04	.1890t-01	.7330
>00.4503	. 3958	2.8641	8.573¥	175.3506	3.1472	1.1123	1.1065	. 9946	.24438-04	.1941E-01	.7307
510.4503	. 1749	3.500t	d.7774	177.6330	5.1564	1.1126	1.1062	.9942	.2404E-04	.1993E-01	. 7284
520.4503	• 3648	4.2634	8.9671	173.7173	5.2205	1.1133	1.1062	.9938	.2524E-34	.2045E-01	.7262
230.4503	.0561	5.1736	9.1639	140.4001	0.2675	1.1136	1.1064	.9434	.2565E-04	.2C98E-01	.7239
340.4503	.0473	6.2551	1.3605	132.1115	0.3357	1.1144	. 1.1069	.9931	.26C6E-04	·2151E-01	.7216
550.4503	.3460	7.5347	9.5568	183.8355	5.3432	1.1155	1.1077	. 4728	-26471-04	.2205E-01	.7194
560.4503 570.4503	• 5335 • 6289	9.0417 10.5104	9.7520 9.9476	185.5891 187.3819	5.34U2 5.4168	1.1168	1.1089	.9927 .9926	.2689E-04	.2259E-01 .2314E-01	.7173 .7152
280.4503	.0267	12.5734	10.1417	189.2250	5.4732	1.1202	1.1127	.9931	.2773E-04	.2370E-01	7132
588.8689											
200.0009	.0217	14.6721	10.3346	193.8281	0.4339	1.1219	1.1149	.9935	.2869E-04	.2416E-01	.7116
		14.6721		193.8281	/R= 9.5000				.28698-04		
Τ	. 0217 V	p	10.3046 h/RT				γ _e	.9935 Z	.28C9E-04 µ	.2418E-01	.7116 N _{Pr}
T 314.4239	V	p .c155	h/RT 5.1737	s a 141.0754	/R= 9.5000 C/R P 5.0483	γ 1.1326		Z . 1 997			
T 314.4239 324.4239	V 11.1717 6.9648	p .C15t .U203	h/RT 5.1737 2.3333	s a 141.0754 143.1500	/R= 9.5000 c/R 5.0483 5.1264	Y 1.1326 1.1303	γ _e 1.1324 1.1301	Z . . 3 997 . 9 997	μ •1640E-04 •1646E-04	k	N _{Pr} .7769
T 514.4239 324.4239 334.4234	V 11.1717 8.9648 6.9629	p • C155 • U203 • 0265	h /RT 5.1737 2.3333 5.5056	a 141.0754 143.1500 145.1946	/k= 9.5000 c/R p 5.0483 5.1264 2.2022	1.1326 1.1303 1.1292	Ye 1.1324 1.1301 1.1279	Z • 1 997 • 9996	μ •1640E-04 •1646E-04 •1733E-04	k .1007E-01 .1056E-01 .1106E-01	N _{Pr} .7769 .7731
T 314.4239 324.4239 334.4234 344.4239	V 11.1717 6.9648 6.9629 5.5240	p • C155 • U203 • 0265 • 0344	h/RT 5.1737 2.33333 5.5056 5.6756	s a 141.0754 143.1500 145.1945 147.2136	C R P 5.0483 5.1264 5.2022 5.2756	1.1326 1.1303 1.1282 1.1262	Ye 1.1324 1.1301 1.1279 1.1259	Z • 3997 • 9996 • 9996	μ .1640E-04 .1680E-04 .1733E-04 .1779E-04	k .1007E-01 .1056E-01 .1156E-01	N Pr .7769 .7731 .7698 .7667
T 314.4239 324.9239 334.9239 344.9239 354.9239	V 11.1717 6.9648 6.9629 5.5240 4.3964	p .0155 .0203 .0265 .0344 .C445	h/RT 5.1737 2.3333 5.5056 5.6756 5.6756	s a 141.0754 143.1500 145.1946 147.2136 149.1992	C R P 5.0483 5.1264 5.2022 5.2756 5.3466	1.1326 1.1303 1.1282 1.1262 1.1244	Ye 1.1324 1.1301 1.1279 1.1259 1.1240	Z . 3997 . 9997 . 9996 . 9996	μ .1640E-04 .1646E-04 .1733E-04 .1779E-34 .1824E-04	k .1007E-01 .1056E-01 .1106E-01 .1206E-01	N _{Pr} .7769 .7731 .7698 .7667 .7639
T 314.4239 324.9239 334.4239 354.4239 354.4239	V 11.1717 8.9648 6.9629 5.5240 4.3964 3.5097	p .0155 .0203 .0264 .0344 .0445	h / RT 5.1737 2.3333 5.5056 5.6756 5.6432 6.0233	a 141.0754 143.1500 145.1946 147.2106 149.1992 151.1614	C R P 5.0483 5.1264 5.2022 5.2756 5.3466 7.4153	1.1326 1.1303 1.1282 1.1262 1.1244 1.1227	Ye 1.1324 1.1301 1.1279 1.1259 1.1240 1.1222	Z . 9997 . 9996 . 9996 . 9995	μ •1640E-04 •1646E-04 •1733E-04 •1779E-04 •1824E-04	k .1007E-01 .1056E-01 .1106E-01 .126E-01 .1256E-01	N _{Pr} .7769 .7731 .7698 .7667 .7639 .7613
T 314.4239 324.4239 334.4239 354.4239 364.4239 364.4239 374.4234	V 11.1717 6.9648 6.9629 5.5240 4.3964 3.5097 2.3168	P .C155 .U203 .0265 .0344 .C445 .0573	h/RT 5.1737 2.3333 5.5056 5.6756 5.8432 6.0233 6.2008	8 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 153.0984	CR p 5.0483 5.1264 2.2022 2.2756 5.3466 2.4153 3.4816	1.1326 1.1303 1.1292 1.1262 1.1244 1.1227 1.1210	Ye 1.1324 1.1301 1.1279 1.1259 1.1240 1.1222 1.1205	Z . 9997 . 9996 . 9996 . 9996 . 9995 . 9994	μ .1640Ε-04 .1686Ε-04 .1773Ε-04 .1824Ε-04 .1869Ε-04	k .1007E-01 .1056E-01 .1156E-01 .1206E-01 .1256E-01 .1306E-01	Npr .7769 .7731 .7698 .7667 .7667 .7613
T 314.4239 324.4239 334.4239 354.4239 354.4239 364.4239 374.4239 384.9239	V 11.1717 8.9048 6.9629 5.5240 4.3964 3.5097 2.3108 2.2572	P	h/RT 5.1737 5.3333 5.5056 5.6756 5.6756 6.0233 6.2038 6.3807	a 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 153.0984 155.0139	C/R p 5.0483 5.1264 0.2022 5.2756 5.3466 0.4153 5.4816	1.1326 1.1303 1.1292 1.1262 1.1244 1.1227 1.1210 1.1195	Ye 1.1324 1.1301 1.1279 1.1259 1.1240 1.1222 1.1205 1.1189	Z . 3997 . 9497 . 9996 . 9996 . 9995 . 9995 . 9994 . 9993	μ .1640Ε-04 .1686Ε-04 .1733Ε-04 .1779Ε-04 .1824Ε-04 .1852Ε-04 .1913Ε-04	k .1007E-01 .1056E-01 .1106E-01 .1206E-01 .1256E-01 .1306E-01	Npr .7769 .7731 .7698 .7667 .7613 .7518 .7518
T 314.4239 324.4239 334.4239 354.4239 364.4239 364.4239 374.4234	V 11.1717 6.9648 6.9629 5.5240 4.3964 3.5097 2.3168	P .C155 .U203 .0265 .0344 .C445 .0573	h/RT 5.1737 2.3333 5.5056 5.6756 5.8432 6.0233 6.2008	8 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 153.0984	CR p 5.0483 5.1264 2.2022 2.2756 5.3466 2.4153 3.4816	1.1326 1.1303 1.1292 1.1262 1.1244 1.1227 1.1210	Ye 1.1324 1.1301 1.1279 1.1259 1.1240 1.1222 1.1202 1.1189 1.1174	Z . 9997 . 9996 . 9996 . 9996 . 9995 . 9994	# .1640E-04 .1686E-04 .1733E-04 .1779E-04 .1869E-04 .1913E-04 .2001E-04	k .1007E-01 .1056E-01 .1106E-01 .126E-01 .1256E-01 .1356E-01 .1356E-01	NPr .7769 .7731 .7698 .7667 .7639 .7613 .7588 .7564
T 314.4239 324.9239 334.9239 354.9239 364.9239 364.9239 384.9239 384.9239 404.9239 404.9239	V 11.1717 6.9648 6.9629 5.5240 4.3964 3.5097 2.4572 1.6183 1.4690 1.1962	P .C155 .U203 .0265 .0344 .C445 .0573 .0734 .1196 .1517	h / RT 5.1737 5.3333 5.5056 5.6756 5.6756 6.2034 6.2034 6.3807 6.5624 6.7470 6.9332	a 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 153.0994 155.0139 156.9000 158.7666 153.6114	C/R p 5.0483 5.1264 5.2022 5.2756 5.3466 5.4153 5.4816 5.0073 5.6667 5.7238	1.1326 1.1303 1.1292 1.1262 1.1244 1.1227 1.1210 1.1195 1.1182 1.1169	Y e 1.1324 1.1301 1.1279 1.1259 1.1240 1.1222 1.1100 1.1189 1.1174 1.1160 1.1147	Z . 1997 . 9996 . 9995 . 9995 . 9995 . 9995 . 9999 . 9999 . 9999 . 9999	# .1640E-04 .1686E-04 .1733E-04 .1779E-04 .1824E-04 .1913E-04 .1957E-04 .2004E-04	k .1007E-01 .1056E-01 .1106E-01 .1206E-01 .1256E-01 .1306E-01	Npr .7769 .7731 .7698 .7667 .7613 .7518 .7518
T 314.4239 324.4239 334.4239 354.4239 354.4239 374.4239 384.9239 404.4239 404.4239 414.9239 424.42239	V 11.1717 6.9648 6.9629 5.5240 4.3964 7.5097 2.5168 2.2572 1.6183 1.4690 1.1902	P .C155 .U203 .O265 .O344 .C445 .O573 .O734 .C939 .1196 .1517 .1919 .2418	h / RT 5.1737 5.3333 5.5056 5.6756 5.6432 6.2036 6.3807 6.55628 6.7470 6.4332 7.1213	3 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 153.0984 155.0139 156.9000 158.7666 163.6114 162.4353	C R p 5.0264 5.0264 5.2022 5.2756 5.3466 5.4153 5.496 5.0073 5.7238	1.1326 1.1303 1.1282 1.1262 1.1244 1.1227 1.1210 1.1195 1.1182 1.1169 1.1157	Ye 1.1324 1.1301 1.1279 1.1259 1.1260 1.1202 1.1189 1.1174 1.1160 1.1147	Z . 3997 . 9996 . 9996 . 9995 . 9994 . 9993 . 9994 . 9991 . 9990	μ .1640E-04 .1686E-04 .1733E-04 .1779E-04 .1869E-04 .1913E-04 .1913E-04 .201E-04	k .1007E-01 .1056E-01 .1106E-01 .1206E-01 .1256E-01 .1350E-01 .1356E-01 .1456E-01	N Pr -7769 -7731 -7698 -7667 -7613 -7588 -7564 -7540 -7517 -7495
T 314.4239 324.4239 334.4239 354.4239 354.4239 364.4239 374.4239 404.4239 404.4239 404.4239 424.9239	V 11.1717 6.9648 6.9629 5.5240 4.3964 3.5097 2.3168 2.2572 1.4183 1.4690 1.1902 .9671 .7880	p .C155 .U203 .O265 .O344 .C445 .O573 .O734 .C939 .1196 .1517 .1919 .2418 .3037	h / RT 5.1737 5.3333 5.5056 5.6756 5.6756 6.2034 6.2034 6.3807 6.5623 6.7470 6.9332 7.1213	a 141.0754 143.1500 145.1946 147.2106 149.1992 151.1614 153.0984 155.0109 156.9000 158.7666 150.6114 162.4353 164.2392	C R p 5.0483 5.1264 2.2022 5.2766 5.3466 2.4153 5.4816 5.073 2.6667 5.7238 2.7787 5.3313	1.1326 1.1303 1.1232 1.1262 1.1244 1.1227 1.1210 1.1195 1.1169 1.1167 1.1157 1.1146	Y e 1.1324 1.1301 1.1279 1.1259 1.1240 1.1222 1.1205 1.1189 1.1174 1.1160 1.1147 1.1135	Z . 1997 . 9996 . 9996 . 9995 . 9995 . 9995 . 9991 . 9990 . 9989 . 9989	μ .1640E-04 .1686E-04 .1733E-04 .1779E-24 .1824E-04 .1818E-04 .1913E-04 .201E-04 .201E-04 .204E-04 .2129E-04 .2171E-04	k .1007E-01 .1056E-01 .1106E-01 .1206E-01 .1256E-01 .1356E-01 .1456E-01 .1456E-01 .1506E-01 .1556E-01	NPr -7759 -7731 -7698 -7667 -7613 -7588 -7564 -7540 -7547 -7495 -7472
T 314.9239 324.9239 334.9239 354.9239 364.9239 364.9239 404.9239 414.9239 434.9239 434.9239 434.9239	V 11.1717 6.9648 6.9629 5.5240 4.3964 2.577 1.3183 1.4690 11.962 .9671 .7880	P .C155 .U203 .0265 .0344 .C445 .0573 .0734 .C939 .1196 .1177 .1919 .2418 .3037	h / RT 5.1737 2.3333 5.5056 5.6756 5.6432 6.2008 6.3807 6.5628 6.7470 6.932 7.3112 7.5029	3 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 153.0984 155.0109 156.9000 158.7666 150.6114 162.4333 164.2372 165.0240	CPR 5.0483 5.1204 2:2022 3:2756 5.3406 7.4816 2:4816 2:4816 2:4816 2:7787 5.7238 2:7787 5.3313 2:8817	1.1326 1.1303 1.1292 1.1262 1.1262 1.1244 1.1227 1.1195 1.1195 1.1157 1.1169 1.1157 1.1146 1.1136	Ye 1.1324 1.1301 1.1279 1.1259 1.1240 1.1222 1.1205 1.1189 1.1174 1.1160 1.1147 1.1135 1.1123	Z . 9997 . 9996 . 9996 . 9995 . 9994 . 9992 . 9991 . 9999 . 9989 . 9988	# .1640E-04 .1686E-04 .1733E-04 .1779E-04 .1824E-04 .1913E-04 .201E-04 .204-E-04 .201E-04 .2129E-04 .2171E-04	k .1007E-01 .1056E-01 .1106E-01 .1256E-01 .1356E-01 .1356E-01 .1406E-01 .1556E-01 .1556E-01 .156E-01	NPr -7769 -7731 -7698 -7667 -7669 -7613 -7588 -7564 -7540 -7517 -7475 -7472 -7449
T 314.4239 324.4239 334.4239 354.4239 354.4239 374.4239 384.9233 494.4239 414.9239 424.9239 424.9239 424.9239	V 11.1717 6.9648 6.9629 5.5240 4.3964 3.5097 2.3168 2.2572 1.3183 1.4690 1.1902 .9671 .7880 6439 5277	P .C155U203 .O2650344 .C4450573 .0734 .C939 .1196 .1517 .1919 .2418 .3037 .3802	h / RT 5.1737 5.3333 5.505c 6.6756 6.6033 6.2034 6.3807 6.5628 6.7470 6.9332 7.1213 7.3112 7.5029	3 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 153.0984 155.0139 156.9000 158.7666 162.6114 162.6114 162.6214 164.2392 164.2392 165.0240 167.7936	C R p 5.04483 5.1264 5.2022 5.2756 5.3466 5.49816 5.0073 5.7238 5.0667 5.7787 5.73813 5.8817 5.9299	1.1326 1.1303 1.1232 1.1262 1.1244 1.1227 1.1210 1.1195 1.1169 1.1169 1.1169 1.1146 1.1136 1.1136 1.1136	Y e 1.1324 1.1301 1.1279 1.1259 1.1240 1.1220 1.1205 1.1189 1.1174 1.1160 1.1147 1.1135 1.1131 1.1103	Z . 1997 . 1997 . 1996 . 1995 . 1995 . 1995 . 1993 . 1993 . 1993 . 1998 . 1988 . 1988	μ .1640E-04 .1686E-04 .1733E-04 .1779E-94 .1824E-04 .1913E-06 .1913E-06 .2001E-04 .204FE-04 .2129E-04 .2121E-04 .2213E-04	k .1007E-01 .1056E-01 .1106E-01 .1206E-01 .1206E-01 .1306E-01 .1356E-01 .1456E-01 .1556E-01 .1556E-01 .1566E-01 .1606E-01 .1606E-01	NPr -7769 -7731 -7698 -7667 -7639 -7613 -7588 -7564 -7540 -7517 -7495 -7445
T 314.9239 324.9239 334.9239 354.9239 354.9239 364.9239 384.9239 404.9239 424.9239 424.9239 434.9239 444.9239 454.9239	V 11.1717 6.9648 6.9629 5.5240 4.3964 3.5097 2.3168 2.2572 1.4183 1.4690 1.1962 .9671 .7880 .6439 .5277 4336	p .C155 .U203 .O269 .O344 .C445 .O273 .O734 .C939 .1196 .1517 .1919 .2418 .3037 .3602 .4743 .5895	h / RT 5.1737 5.3333 5.5056 5.6432 6.0233 6.2008 6.3807 6.5628 6.7470 6.9332 7.1213 7.3112 7.5029 7.6961	8 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 153.0998 155.0139 156.9000 158.7666 153.6114 162.4353 164.2372 165.0240 157.7996 169.5401	C/R 5.0483 5.1264 2.2022 5.2756 5.3466 2.4153 6.4816 2.2456 5.0073 2.6667 7.7238 2.7767 5.3313 2.8817 5.9299 5.9760	1.1326 1.1303 1.1282 1.1262 1.1244 1.1227 1.1210 1.1195 1.1169 1.1157 1.1146 1.1136 1.1136 1.1137	Y e 1.1324 1.1301 1.1279 1.1259 1.1240 1.1202 1.1202 1.1160 1.1147 1.1153 1.1123 1.1103	Z . 1997 . 9996 . 9995 . 9995 . 9995 . 9995 . 9998 . 9988 . 9986 . 9988	μ .1640E-04 .1686E-04 .1733E-04 .1779E-34 .1824E-04 .1869E-04 .1957E-04 .2001E-04 .204 E-04 .205 E-04 .2121E-04 .213E-04 .223E-04	k .1007E-01 .1056E-01 .1106E-01 .1206E-01 .1256E-01 .1306E-01 .1356E-01 .1456E-01 .1556E-01 .1566E-01 .1566E-01 .1756E-01	NPr -7759 -7731 -7698 -7667 -7613 -7518 -7554 -7540 -7540 -7475 -7
T 314.9239 324.9239 334.9239 354.9239 364.9239 364.9239 464.9239 424.9239 434.9239 434.9239 434.9239 434.9239 434.9239 434.9239 434.9239	V 11.1717 6.9649 5.9649 5.9240 4.3964 3.5097 2.4572 1.3183 1.4690 1.1962 .9671 .7880 6439 .9277 .4336 .3573	P .C155 .U203 .0265 .0344 .C445 .O439 .1196 .1617 .1919 .2418 .3037 .3802 .4743	h / RT 5.1737 5.3333 5.5056 5.6756 5.6432 6.2036 6.3807 6.3807 6.3807 7.3112 7.3112 7.5029 7.6961 7.8408 8.0869	3 141.0754 143.1500 145.1946 147.2136 149.1492 151.1614 153.0984 155.0109 156.9000 158.7666 150.6114 162.4353 164.2392 165.0240 167.7906 169.5401 171.2737	C R p 5.1204 2.2022 3.2756 5.3406 3.4916 3.49816	1.1326 1.1303 1.1232 1.1262 1.1262 1.1244 1.1227 1.1195 1.1185 1.1157 1.1157 1.1146 1.1136 1.1127 1.1118	Ye 1.1324 1.1301 1.1279 1.1259 1.1269 1.1205 1.1205 1.1189 1.1174 1.1160 1.1147 1.1135 1.1133 1.1103 1.1094	Z . 1997 . 1997 . 1997 . 1998 . 1995 . 1995 . 1995 . 1998 . 1998 . 1998 . 1988 . 1988 . 1988 . 1988	μ •1640E-04 •1646E-04 •1773E-04 •1824E-04 •1813E-06 •1913E-06 •201E-04 •201E-04 •201E-04 •2129E-04 •2111E-04 •2213E-04 •2213E-04	k .1007E-01 .1056E-01 .1106E-01 .1256E-01 .1256E-01 .1356E-01 .1456E-01 .1556E-01 .1556E-01 .1656E-01 .1656E-01 .1656E-01 .1656E-01 .1756E-01	NPr -7769 -7731 -7698 -7667 -7639 -7613 -7588 -7564 -7517 -7495 -7449 -7449 -7449 -7449 -7449 -7449 -7437 -74373
T 314.9239 324.9239 334.9239 354.9239 364.9239 364.9239 404.9239 404.9239 424.9239 424.9239 444.9239 454.9239 454.9239 454.9239 454.9239	V 11.1717 6.9648 6.96249 4.3964 3.5097 1.3168 2.2572 1.3183 1.4690 1.1962 .9671 .7880 .6439 .5277 .4336 .3573 .2953	P .C155U203U263U265U344C445U273U2391196121719192418303738024743589673109030	h / RT 5.1737 5.3333 5.5050 5.6756 5.0432 6.2034 6.3807 6.5623 6.7470 6.9332 7.1213 7.3112 7.5029 7.9961 7.8908 8.0869 8.2841	3 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 153.0934 155.0139 156.9000 158.7666 162.4353 164.2392 166.0240 167.7936 169.5401 171.2737 172.9927	C R P 5.0483 5.1264 5.2022 5.2756 5.3466 7.4153 7.4816 7.7238 7.7787 7.7238 7.7787 7.7238 7.7313 7.4817 7.7239 7.7313 7.4817 7.9299 7.9760 6.0199	1.1326 1.1303 1.1282 1.1262 1.1244 1.1227 1.1210 1.1195 1.1169 1.1157 1.1146 1.1136 1.1136 1.1127 1.1118 1.11118	Y e 1.1324 1.1301 1.1259 1.1240 1.1225 1.1205 1.1189 1.1174 1.1135 1.1133 1.1133 1.1103 1.110945 1.1078	Z . 1997 . 5997 . 9996 . 9995 . 9995 . 9991 . 9991 . 9988 . 9986 . 9988 . 9988 . 9988 . 9987	μ .1640E-04 .1686E-04 .1733E-04 .1779E-04 .1869E-04 .1913E-04 .1913E-04 .2014E-04 .204FE-04 .2129E-04 .21213E-04 .2213E-04 .2336E-04 .2336E-04	k .1007E-01 .1056E-01 .1106E-01 .1206E-01 .1256E-01 .1350E-01 .1456E-01 .1456E-01 .1556E-01 .1556E-01 .1666E-01 .1666E-01 .1756E-01 .1756E-01 .1756E-01	NPr -7769 -7769 -7769 -7667 -7639 -7613 -7588 -7564 -7540 -7445 -7445 -7445 -7445 -7445 -7445 -7452 -7357
T 314.9239 324.9239 334.9239 354.9239 354.9239 364.9239 404.9239 404.9239 424.9239 434.9239 434.9239 454.9239 454.9239 454.9239 454.9239 454.9239 454.9239 454.9239 454.9239	V 11.1717 6.9648 6.9629 5.5240 4.5964 3.5097 2.3168 2.2572 1.4183 1.4690 1.1902 .9671 .7880 .6439 .5277 4336 .3573 .2953	p .C155 .U203 .O269 .O344 .C445 .O273 .O734 .C939 .1196 .1517 .1919 .2418 .3037 .3802 .4743 .5895 .7310	h / RT 5.1737 5.3333 5.5056 5.6756 6.0233 6.2008 6.3807 6.5628 6.7470 6.9332 7.1213 7.3112 7.5029 7.6961 7.84988 8.0869 8.2841 8.4825	3 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 153.0984 155.0109 156.9000 158.7666 152.6114 162.4353 164.2392 165.0240 157.7936 169.5401 171.2737 172.9927 174.6987	C R 5.0483 5.1264 2.2022 5.2756 5.3466 2.4153 5.4816 2.2022 5.2758 2.7787 2.6667 5.3313 2.6667 5.7338 2.7787 6.0199 6.0198 6.1017	1.1326 1.1303 1.1282 1.1244 1.1227 1.1210 1.1195 1.1169 1.1157 1.1146 1.1136 1.1137 1.1118 1.1127 1.1118 1.1100 1.1100	Y e 1.1324 1.1301 1.1279 1.1240 1.1222 1.1205 1.1189 1.1174 1.1160 1.1147 1.1135 1.1123 1.1103 1.1103 1.1071	Z . 9997 . 9996 . 9995 . 9994 . 9993 . 9992 . 9991 . 9989 . 9988 . 9986 . 9988 . 9981 . 9997	# 1640E-04 1686E-04 1733E-04 1779E-04 1824E-04 1913E-04 1957E-04 204E-04 204E-04 213E-04 213E-04 2213E-04 2213E-04 22336E-04 2336E-04 2336E-04	k .1007E-01 .1056E-01 .1106E-01 .1256E-01 .1256E-01 .1356E-01 .1456E-01 .1556E-01 .1566E-01 .1566E-01 .1756E-01 .1756E-01 .1756E-01 .1756E-01 .1807E-01	NPr -7769 -7731 -7698 -7667 -7639 -7613 -7588 -7554 -7540 -7547 -7449 -7449 -7425 -7402 -7437 -7353 -7327
T 314.9239 324.9239 334.9239 354.9239 364.9239 364.9239 404.9239 404.9239 424.9239 424.9239 444.9239 454.9239 454.9239 454.9239 454.9239	V 11.1717 6.9648 6.96249 4.3964 3.5097 1.3168 2.2572 1.3183 1.4690 1.1962 .9671 .7880 .6439 .5277 .4336 .3573 .2953	P .C155U203U263U265U344C445U273U2391196121719192418303738024743589673109030	h / RT 5.1737 5.3333 5.5050 5.6756 5.0432 6.2034 6.3807 6.5623 6.7470 6.9332 7.1213 7.3112 7.5029 7.9961 7.8908 8.0869 8.2841	3 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 153.0934 155.0139 156.9000 158.7666 162.4353 164.2392 166.0240 167.7936 169.5401 171.2737 172.9927	C R P 5.0483 5.1264 5.2022 5.2756 5.3466 7.4153 7.4816 7.7238 7.7787 7.7238 7.7787 7.7238 7.7313 7.4817 7.7239 7.7313 7.4817 7.9299 7.9760 6.0199	1.1326 1.1303 1.1282 1.1262 1.1244 1.1227 1.1210 1.1195 1.1169 1.1157 1.1146 1.1136 1.1136 1.1127 1.1118 1.11118	Y e 1.1324 1.1301 1.1259 1.1240 1.1225 1.1205 1.1189 1.1174 1.1135 1.1133 1.1133 1.1103 1.110945 1.1078	Z . 1997 . 5997 . 9996 . 9995 . 9995 . 9991 . 9991 . 9988 . 9986 . 9988 . 9988 . 9988 . 9987	μ .1640E-04 .1686E-04 .1733E-04 .1779E-04 .1869E-04 .1913E-04 .1913E-04 .2014E-04 .204FE-04 .2129E-04 .21213E-04 .2213E-04 .2336E-04 .2336E-04	k .1007E-01 .1056E-01 .1106E-01 .1206E-01 .1256E-01 .1350E-01 .1456E-01 .1456E-01 .1556E-01 .1556E-01 .1666E-01 .1666E-01 .1756E-01 .1756E-01 .1756E-01	NPr -7769 -77731 -7698 -7667 -7613 -7588 -7564 -7540 -7547 -7449 -7425 -7449 -7425 -7437 -7327
T 314.9239 324.9239 334.9239 354.9239 354.9239 364.9239 404.9239 414.9239 424.9239 434.9239 434.9239 434.9239 434.9239 434.9239 434.9239 434.9239 434.9239 434.9239 434.9239 434.9239 434.9239 434.9239	V 11.1717 6.9648 6.9648 6.96240 4.3964 4.3964 7.24572 1.3183 1.4690 1.1902 .9671 .7880 6.439 .5277 .4336 .3573 .2953 .2447	P .C155 .U203 .O265 .O344 .C445 .O573 .O734 .C939 .1196 .1517 .1919 .2418 .3037 .3602 .4743 .5898 .7310 .9030 1.112C	h / RT 5.1737 5.3333 5.5056 5.6756 5.6432 6.2036 6.3807 6.3807 6.7470 6.7332 7.3112 7.5029 7.6961 7.8408 8.0869 8.2841 8.4825 8.6819	3 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 153.0984 155.0139 156.9000 158.7666 162.4323 164.2392 165.0240 167.7906 169.5401 171.2737 172.9927 174.6987 176.3935	CPR 5.0483 5.1264 2.2022 5.2756 5.3406 2.4153 6.0667 5.7238 5.073 7.7287 5.73813 2.8817 5.9299 6.0018 6.1017 6.1397	1.1326 1.1303 1.1252 1.1262 1.1264 1.1227 1.1195 1.1195 1.1169 1.1157 1.1146 1.1136 1.1118 1.1118 1.11111 1.11005 1.1095 1.1095	Y e 1.1324 1.1301 1.1279 1.1259 1.1240 1.1222 1.1189 1.1174 1.1160 1.1147 1.1135 1.1103 1.1103 1.1095 1.1078 1.1071 1.1076	Z . 3997 . 3997 . 9996 . 9995 . 9995 . 9995 . 9991 . 9989 . 9988 . 9986 . 9984 . 9983 . 9987 . 9977	μ .1640E-04 .1686E-04 .1773E-04 .1879E-04 .1824E-04 .1818E-04 .1913E-04 .201E-04 .204E-04 .2129E-04 .2121E-04 .2213E-04 .2215E-04 .2215E-04 .2336E-04 .2336E-04 .2336E-04	k .1007E-01 .1056E-01 .1106E-01 .1206E-01 .1206E-01 .1306E-01 .1356E-01 .1406E-01 .1556E-01 .1556E-01 .1566E-01 .1566E-01 .1566E-01 .1606E-01 .1706E-01 .1756E-01 .1796E-01	NPr -7769 -7731 -7698 -7667 -7613 -7588 -7564 -7564 -7517 -7495 -7449 -7425 -7427 -7353 -7353 -7327
T 314.9239 324.9239 334.9239 354.9239 364.9239 374.9239 404.9239 404.9239 424.9239 424.9239 424.9239 424.9239 424.9239 424.9239 424.9239 424.9239 424.9239 424.9239 424.9239 524.9239 524.9239	V 11.1717 6.9048 6.9049 5.>240 4.3964 3.5097 2.3168 1.4690 1.1902 9671 7880 6439 5277 4336 3573 2953 2447 2447 .1187	P .C155U203 .02650344 .C4450573 .0734 .C939 .1196 .1217 .1919 .2418 .3037 .3002 .4743 .5896 .7316 .9030 .1120 .13649 .20366 .24757	h / RT 5.1737 5.3333 5.5056 6.6756 6.6003 6.3807 6.5623 6.3807 6.5623 7.3112 7.5029 7.8908 8.0869 8.8821 9.0829 9.2843	3 141.0754 143.1500 145.1946 147.2136 149.1992 151.161 153.0984 155.0139 156.9000 158.7666 160.6114 160.6114 160.6114 167.7906 167.7906 167.7906 169.5401 171.2737 174.6987 174.6987 174.6987 174.6987 178.0793 179.7566 181.4343	C R 9.5006 C R 5.0483 5.1264 5.2022 5.2756 5.3466 7.4153 7.0667 5.7238 7.5787 5.3313 7.9299 5.9760 6.0199 6.0618 6.1017 6.1758 6.2100 6.2100	1.1326 1.1303 1.1282 1.1262 1.1244 1.1227 1.1210 1.1195 1.1146 1.1157 1.1146 1.1136 1.1127 1.1118 1.1111 1.1100 1.1095 1.1095 1.1099 1.1089	Y e 1.1324 1.1301 1.1279 1.1259 1.1240 1.1222 1.1205 1.1189 1.1174 1.1135 1.1133 1.1103 1.1094 1.1078 1.1078 1.1078 1.1066 1.1062 1.1059	Z . 1997 . 1997 . 1996 . 1995 . 1995 . 1995 . 1998 . 1998 . 1988 . 1988 . 1988 . 1988 . 1988 . 1987 . 1997 . 1997 . 1997 . 1996	μ .1640E-04 .1686E-04 .1733E-04 .1779E-04 .1824E-04 .1813E-04 .1913E-04 .2011E-04 .201E-04 .2129E-04 .2121E-04 .2213E-04 .2336E-04 .2376E-04 .2376E-04 .2496E-04 .2535E-04	k .1007E-01 .1056E-01 .1106E-01 .1206E-01 .1206E-01 .1306E-01 .1356E-01 .1456E-01 .1556E-01 .1556E-01 .1556E-01 .1556E-01 .1556E-01 .1556E-01 .1556E-01 .1706E-01 .1756E-01 .1756E-01 .1756E-01 .1756E-01 .1756E-01 .1857E-01 .1958E-01 .2009E-01 .2009E-01	NPr -7769 -7731 -7698 -7667 -7639 -7613 -7588 -7564 -7540 -7547 -7495 -7445 -7402 -7357 -7357 -7357 -7301 -7274 -7219
T 314.9239 324.9239 334.9239 354.9239 364.9239 374.9239 404.9239 414.9239 424.9239 434.9239 434.9239 434.9239 434.9239 434.9239 434.9239 434.9239 534.9239 534.9239 534.9239 534.9239	V 11.1717 6.9648 6.9629 5.5240 4.3964 3.5097 2.3168 2.2572 1.4183 1.4690 1.1962 .9671 .7580 .6439 .5277 .4336 .3573 .2953 .2447 .2033 .1694 .1416 .1187	p .c155 .u203 .0265 .0344 .c445 .0573 .0734 .c939 .1196 .2418 .3037 .3802 .4743 .5898 .7310 .9030 1.1120 1.3649 2.0366 2.4757 2.9998	h / RT 5.1737 5.3333 5.505c 6.6756 5.6432 6.2034 6.3807 6.5623 6.7470 6.9332 7.3112 7.5029 7.6901 7.8908 8.0869 8.2841 8.4825 8.6819 9.2843 9.4862	3 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 153.0984 155.0109 158.7666 150.6114 162.4353 164.2392 165.0240 157.7906 169.5401 171.2737 172.9927 174.6987 176.3935 178.0793 179.7566 181.4343 183.1100	C R 5.0483 5.1204 2.2022 5.27466 7.4153 7.4816 7.7238 7.7787 7.7238 7.7787 6.1397 6.1397 6.1397 6.1397 6.1397 6.2426 6.2735	1.1326 1.1303 1.1232 1.1262 1.1262 1.1244 1.1227 1.1195 1.1157 1.1169 1.1157 1.1118 1.11105 1.11095 1.1095 1.1099 1.1089 1.1089 1.1089	Y e 1.1324 1.1379 1.1259 1.1240 1.1222 1.1205 1.1189 1.1174 1.1147 1.1133 1.1103 1.1103 1.1071 1.1062 1.1059	Z . 1997 . 9996 . 9996 . 9995 . 9995 . 9995 . 9998 . 9980 . 9988 . 9986 . 9983 . 9981 . 9977 . 9977 . 9977 . 99768	### 11640E-04 11686E-04 11738E-04 11779E-04 11818E-04 11918E-04 11918E-04 2011E-04 2011E-04 2121E-04 2121E-04 2213E-04 2213E-04 2214E-04 2216E-04 2216E-04 2216E-04 2254E-04 2254E-04 2254E-04 2254E-04 2254E-04 2254E-04 2254E-04 2254E-04	k .1007E-01 .1056E-01 .1106E-01 .1206E-01 .1256E-01 .13506E-01 .1456E-01 .1456E-01 .1556E-01 .1556E-01 .1556E-01 .1556E-01 .1556E-01 .1556E-01 .1756E-01 .1857E-01 .1857E-01 .1857E-01 .1908E-01 .2009E-01 .2060E-01	NPr -7759 -77531 -7698 -7657 -7613 -75588 -7564 -7540 -7547 -7449 -7425 -7449 -7425 -7425 -7425 -7377 -7353 -7353 -7361 -7274 -7219 -7162
T 314.9239 324.9239 334.9239 354.9239 354.9239 364.9239 404.9239 424.9239 424.9239 434.9239 434.9239 434.9239 434.9239 434.9239 434.9239 544.9239 544.9239 544.9239 544.9239 544.9239 544.9239 544.9239 544.9239 544.9239	V 11.1717 6.9648 6.9648 6.96240 4.3964 7.3964 7.49168 2.2572 1.3183 1.4690 1.1902 7.9671 7880 6.439 7277 4.4336 3.573 2.2953 2.2447 2.31694 1.1167 0.0988	P .C155 .U203 .0265 .0344 .C445 .0573 .0734 .C939 .1196 .2418 .3037 .3602 .4743 .5895 .7310 .9030 .1.112 .13649 1.6699 2.0366 2.4757 2.9998	h / RT 5.1737 2.33333 5.5056 5.6756 5.6432 6.2034 6.3807 6.7470 6.7470 6.7470 7.3112 7.5029 7.6961 7.8408 8.0869 8.2841 8.4825 8.6819 8.8821 9.08829 9.2843 9.4863	3 141.0754 143.1500 145.1946 147.2136 149.1492 151.1614 153.0984 155.0109 156.7666 162.4353 164.2392 165.0240 171.2737 172.9927 174.6987 176.3935 178.0793 179.7566 181.4343 183.1100 184.7896	C R 9.5000 C R 5.0483 5.1264 5.2022 5.2756 5.3466 7.4153 7.6667 7.7287 5.7287 5.7287 6.1099 6.0618 6.1017 6.1397 6.1758 6.1200 6.2426 6.3028	1.1326 1.1303 1.1232 1.1262 1.1262 1.1244 1.1227 1.1195 1.1195 1.1169 1.1157 1.1118 1.1111 1.1105 1.11095 1.1095 1.1089 1.1089 1.1089 1.1094	Y e 1.1324 1.1301 1.1279 1.1259 1.1240 1.1222 1.1189 1.1174 1.1135 1.1133 1.1103 1.1071 1.1071 1.1065 1.1077 1.1059	Z . 3997 . 9996 . 9995 . 9995 . 9995 . 9991 . 9991 . 9988 . 9986 . 9984 . 9983 . 9987 . 9977 . 9977 . 9977 . 9978 . 9968	μ 1040E-04 1680E-04 1773E-04 1877E-04 1824E-04 1818-06 1913E-06 201E-04 201E-04 201E-04 201E-04 201E-04 201E-04 201E-04 201E-04 2016E-04	k .1007E-01 .1056E-01 .1106E-01 .1206E-01 .1206E-01 .1306E-01 .1306E-01 .1406E-01 .1456E-01 .1556E-01 .1556E-01 .1556E-01 .1556E-01 .1606E-01 .1756E-01 .1756E-01 .1795E-01 .2009E-01 .2009E-01 .211E-01 .2163E-01	NPr -7769 -7731 -7698 -7667 -7639 -7518 -7558 -7564 -7517 -7497 -7449 -7425 -7402 -73373 -7327 -7327 -7327 -7327 -7327 -7327 -7327 -7317
T 314.9239 324.9239 334.9239 354.9239 364.9239 364.9239 404.9239 404.9239 424.9239 424.9239 424.9239 424.9239 424.9239 424.9239 424.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239	V 11.1717 6.9648 6.96249 4.3964 3.5097 1.3163 2.2572 1.3183 1.4690 1.1962 .9671 .7880 .6439 .2277 .4336 .3573 .2953 .2447 .2033 .14187 .0998 .0841 .7711	P .C155U203 .02650344 .C4450573 .0734 .CU39 .1196 .1217 .1919 .2418 .3037 .3802 .4743 .5898 .7310 .9030 .1120 .13649 .16699 .2.0366 .2.4757 .2.9998 .3.6229 .4.3611	h / RT 5.1737 5.3333 5.5050 5.6756 5.0432 6.2034 6.2034 6.2034 6.3807 6.5623 6.7470 6.6332 7.5029 7.8908 8.0869 8.8841 8.4825 8.68121 9.0829 9.2843 9.4862 9.6882	3 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 155.0139 156.9000 158.7666 162.6114 162.4353 164.2392 166.0240 167.7936 169.5401 171.2737 172.9927 174.6987 174.6987 176.3935 179.7566 181.4343 183.1100 184.7890 186.4780	C R 9.5006 C R 5.0483 5.1264 5.2022 5.27266 7.4153 7.4816 7.4786 7.7287 7.7287 7.7287 7.7287 7.7287 6.1017 6.1017 6.1017 6.1017 6.1397 6.2100 6.2100 6.2100 6.2735 6.3338	1.1326 1.1303 1.1282 1.1262 1.1244 1.1227 1.1210 1.1195 1.1169 1.1157 1.1118 1.1111 1.1100 1.1095 1.1099 1.1089 1.1089 1.1099 1.1099	Y e 1.1324 1.1301 1.1259 1.1240 1.1222 1.1205 1.1189 1.1174 1.1135 1.1133 1.1103 1.1103 1.11078 1.1078 1.1078 1.1057 1.1057 1.1057 1.1057 1.1057 1.1057	Z . 1997 . 5997 . 9996 . 9995 . 9995 . 9991 . 9991 . 9988 . 9984 . 9983 . 9987 . 9977 . 9977 . 9977 . 9977 . 9969 . 9968 . 9968	μ .1640E-04 .1646E-04 .1733E-04 .1779E-04 .1869E-04 .1913E-04 .2011E-04 .2011E-04 .213E-04 .213E-04 .2254E-04 .2254E-04 .2336E-04 .2376E-04 .246E-04 .246E-04 .2535E-04	k .1007E-01 .1056E-01 .1106E-01 .1256E-01 .1256E-01 .1356E-01 .1456E-01 .1456E-01 .1556E-01 .1756E-01 .1857E-01 .1857E-01 .1958E-01 .2099E-01 .2060E-01 .2111E-01 .2214E-01	NPr -7769 -7769 -77698 -7667 -7639 -7613 -7588 -7564 -7540 -7445 -7449 -7425 -7449 -7425 -7427 -7353 -7327 -7301 -7274 -7163
T 314.9239 324.9239 334.9239 354.9239 364.9239 364.9239 404.9239 414.9239 414.9239 434.9239 454.9239 454.9239 454.9239 454.9239 564.9239 564.9239 564.9239 564.9239 564.9239 564.9239 564.9239 564.9239	V 11.1717 6.9649 5.9240 4.3964 7.3964 7.3168 1.4690 1.1902 7.480 7.48	P .C155 .U203 .0265 .0344 .C445 .O673 .0734 .U39 .1196 .1617 .1919 .2418 .3037 .3802 .4743 .5896 .7310 .9030 .1112C .3649 1.6699 1.6699 1.6699 2.0366 2.4757 2.9998 3.6229 4.3611 5.2323	h / RT 5.1737 5.3333 5.5056 5.6756 5.6736 6.2008 6.3807 6.3807 7.3112 7.5029 7.6901 7.8908 8.0869 8.0869 8.0869 8.0819 8.0829 9.2843 9.4862 9.6882 9.6882	3 141.0754 143.1500 145.1946 147.2136 149.1492 151.1614 153.0984 155.0109 158.7666 162.6114 162.4353 164.2373 164.2373 164.2373 172.7926 171.2737 172.7927 174.6987 176.3935 178.0793 179.7566 181.4343 183.1100 184.7896 186.47896 186.47896 188.1805	CPR 9.5000 CPR 9.5000 3.1204 2.2022 2.2756 5.3406 2.4816 2.4916 2.2456 5.3737 3.6667 5.7387 5.7387 5.7387 6.618 6.1397 6.1017 6.1397 6.1750 6.2426 6.3028 6.3308	1.1326 1.1303 1.1232 1.1262 1.1262 1.1244 1.1227 1.1195 1.1157 1.1169 1.1157 1.1118 1.1111 1.1111 1.11105 1.11095 1.1095 1.1099 1.1099 1.1094 1.1094 1.11094 1.11094	Y e 1.1324 1.1301 1.1279 1.1259 1.1240 1.1222 1.1189 1.1174 1.1160 1.1147 1.1135 1.1135 1.1103 1.1095 1.1071 1.1066 1.1057 1.1059 1.1059 1.1059 1.1069	Z . 1997 . 1997 . 1998 . 1999 . 1999 . 1999 . 1999 . 1998	μ 1640E-04 1640E-04 1733E-04 1773E-04 1824E-04 1813E-06 1913E-06 201E-04 201E-04 201E-04 2213E-04	k .1007E-01 .105eE-01 .1106E-01 .1256E-01 .1306E-01 .1356E-01 .1406E-01 .1556E-01 .1556E-01 .1556E-01 .1656E-01 .1756E-01 .2009E-01 .211E-01 .216E-01 .214E-01 .2214E-01 .2266E-01	NPr -7769 -7769 -77697 -7698 -7667 -7639 -7613 -7588 -7564 -7564 -7567 -7445 -7445 -74425 -74425 -74353 -7327 -7301 -7274 -7219 -7162 -7133 -7103
T 314.9239 324.9239 334.9239 354.9239 364.9239 364.9239 404.9239 404.9239 424.9239 424.9239 424.9239 424.9239 424.9239 424.9239 424.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239 524.9239	V 11.1717 6.9648 6.96249 4.3964 3.5097 1.3163 2.2572 1.3183 1.4690 1.1962 .9671 .7880 .6439 .2277 .4336 .3573 .2953 .2447 .2033 .14187 .0998 .0841 .7711	P .C155U203 .02650344 .C4450573 .0734 .CU39 .1196 .1217 .1919 .2418 .3037 .3802 .4743 .5898 .7310 .9030 .1120 .13649 .16699 .2.0366 .2.4757 .2.9998 .3.6229 .4.3611	h / RT 5.1737 5.3333 5.5050 5.6756 5.0432 6.2034 6.2034 6.2034 6.3807 6.5623 6.7470 6.6332 7.5029 7.8908 8.0869 8.8841 8.4825 8.68121 9.0829 9.2843 9.4862 9.6882	3 141.0754 143.1500 145.1946 147.2136 149.1992 151.1614 155.0139 156.9000 158.7666 162.6114 162.4353 164.2392 166.0240 167.7936 169.5401 171.2737 172.9927 174.6987 174.6987 176.3935 179.7566 181.4343 183.1100 184.7890 186.4780	C R 9.5006 C R 5.0483 5.1264 5.2022 5.27266 7.4153 7.4816 7.4786 7.7287 7.7287 7.7287 7.7287 7.7287 6.1017 6.1017 6.1017 6.1017 6.1397 6.2100 6.2100 6.2100 6.2735 6.3338	1.1326 1.1303 1.1282 1.1262 1.1244 1.1227 1.1210 1.1195 1.1169 1.1157 1.1118 1.1111 1.1100 1.1095 1.1099 1.1089 1.1089 1.1099 1.1099	Y e 1.1324 1.1301 1.1259 1.1240 1.1222 1.1205 1.1189 1.1174 1.1135 1.1133 1.1103 1.1103 1.11078 1.1078 1.1078 1.1057 1.1057 1.1057 1.1057 1.1057 1.1057	Z . 1997 . 5997 . 9996 . 9995 . 9995 . 9991 . 9991 . 9988 . 9984 . 9983 . 9987 . 9977 . 9977 . 9977 . 9977 . 9969 . 9968 . 9968	μ .1640E-04 .1646E-04 .1733E-04 .1779E-04 .1869E-04 .1913E-04 .2011E-04 .2011E-04 .213E-04 .213E-04 .2254E-04 .2254E-04 .2336E-04 .2376E-04 .246E-04 .246E-04 .2535E-04	k .1007E-01 .1056E-01 .1106E-01 .1256E-01 .1256E-01 .1356E-01 .1456E-01 .1456E-01 .1556E-01 .1756E-01 .1857E-01 .1857E-01 .1958E-01 .2099E-01 .2060E-01 .2111E-01 .2214E-01	NPr -7769 -7769 -77698 -7667 -7639 -7613 -7588 -7564 -7540 -7445 -7449 -7425 -7449 -7425 -7427 -7353 -7327 -7301 -7274 -7163

TABLE III. - Continued

		•		S	/R=10.000	0					
T	V	р	h∠RT	a	c _p /R	γ	Υe	Z	μ	k	$^{N}_{Pr}$
351.1382	11.1717	.6173	5.7030	148.4703	5.3193	1.1250	1.1248	.9997	.1807E-04	-1187E-01	.7649
361.1382	8.9076	.0223	5.9573	150.4462	5.3887	1.1232	1.1230	.9997	.1852t-04	•1237E-01	.7622
371.1382	7.1232	•0287	6.1340	152.3959	5.4558	1.1215	1.1213	.9997	.1897E-04	.1287E-01	•7596
381.1382	5.7148	.0367	6.3132	154.3235	J.5235	1.1199	1.1197	.9995	.1941E-04	•1337E-01	.7572
391.1382	4.5979	.6469	6.4946	155.2269	828د.ز	1.1185	1.1182	• 9996	.1984E+04	.1387t-Ul	.7548
401.1362	3.71CO	•6595	6.6783	158.1081	5.6427	1.1171	1.1168	.9996	.2028t-04	•1436E-Ul	•7525
411.1382	3.0022	.0754	6.0640	159.9679	5.7003	1.1158	1.1154	.9995	.2071E-04	.1486E-01	.7532
421.1382	2.4363	• 09 5 2	7.0518	161.8071	う。7 りうち	1.1146	1.1142	. 9995	.2113E-04	•1536E-01	•7479
431.1382	1.4826	.1197	7.2415	163.6205	ა. გეგე	1.1135	1.1130	. 9494	.2155E-04	.1586E-31	.7450
441.1382	1.5179	.1501	7.4333	165.4272	5.8591	1.1125	1.1119	. 9994	.2197t-04	•1636E-01	•7431
451.1332	1.3239	.1876	7.6262	167.2095	5.9074	1.1116	1.1109	. 7493	.2238t-04	·1686E-J1	• 7407
461.1382	1.3863	.2337	7.821C	168.9747	5.9535	1.1107	1.1100	. 9992	.2279E-04	.1736E-01	.7382
471.1382	.8437	.2902	8.6174	170.7233	5.9972	1.1099	1.1091	.9991	.2319E-04	.1786E-01	.7357
481.1302	. 7373	.3592	8.2152	172.4563	6.0387	1.1092	1.1083	.9991	.2360t-04	·1036E-01	7331
491.1382	•6044	.4432	0.4143	174.1747	5.0779	1.1086	1.1076	. 9990	.2399E-04	·1866E-01	.7304
501.1382	.5058	.5452	8.6146	175.8796	5.1149	1.1080	1.1069	.9989	.2439E-04	•1937E-U1	.7276
511.1382	.4207	•6686	3.8150	177.5720	6.1498	1.1075	1.1064	.9988	.2476E-04	.1987E-01	.7247
521.1382	.3508	.6175	9.0184	179.2533	0.1825	1.1072	1.1059	.9987	.2517E-04	.2037E-01	. 7217
531 - 1382	.2933	.9964	9.2216	130.9250	5.2130	1.1068	1.1355	. 4986	.2556t-04	.2087E-01	•7187
541 - 1382	.2459	1.2109	9.4256	182.5888	5.2415	1.1066	1.1052	.9965	.2594E-04	.2138E-01	.7156
551 - 1382	.267	1.4671	9.6303	184.2457	5.2680	1.1065	1.1350	.9985	.2633E-04	.2189E-01	•7123
561.1382	.1742	1.7721	9.8354	185.9068	6.2425	1.1064	1.1049	.9985	.2671E-04	.2239E-01	·7J90
571.1382	.1472	2.1341	10.6410	187.5534	6.3151	1.1064	1.1044	.9935	.27696-54	.2290E-01	. 7056
581.1382	.1248	2.5c23	16.2438	189.2088	6.3358	1.1066	1.1051	.9985	.2746E-04	.2341E-01	.7021
>88.d&d9	.1100	2.9467	10.4064	190.4945	6.3506	1.1068	1.1054	.9986	.2775E-04	.2381£-01	• 64 44
				s	/R=10.5000	0					
T.	٧	р	h∕RT	a	c _p /R	γ	Υ _e	Ż	μ	k	N _{Pr}
389.2419	11.1692	.0192	6.4505	155.8841	5.5705	1.1186	1.1185	. 9998	•1976E-04	.1377E-01	.7552
399.2419	9.0058	.0244	6.6438	157.7720	5.6308	1.1172	1.1171	.9997	.2019E-04	.1427E-01	.7529
409.2419	7.2839	.6369	6.8293	159.6387	5.6887	1.1159	1.1158	.9997	.2062t-04	.1477E-01	.7505
419.2419	5.4072	.0391	7.6168	161.4850	5.7442	1.1147	1.1145	. 9997	.2105E-04	.1527E-01	.7482
429.2419	4.8042	·C492	7.2963	163.3116	0.7974	1.1136	1.1133	.9997	.2147E-J4	.1576E-01	.7459
439.2419	3.4179	•0 <i>t</i> 17	7.3477	165.1194	5.8482	1.1125	1.1122	• 9.9.9.7	.2164E-04	·1626E-01	•7435
449.2419	3.2038	.0772	7.5908	166.9091	J.8966	1.1115	1.1112	.9496	.2230E-04	.1676E-01	.7410
459.2419	2.6270	.0963	7.7857	168.6815	5.9427	1.1106	1.1103	.9996	.2271t-04	.1726E-J1	86د7،
469.2419	2.1598	.1197	7.9321	170.4372	>.9064	1.1097	1.1074	.9946	.2311t-04	•1776E-31	• 7360
47 9.2419	1.7804	.1482	8.1800	172.1769	6.02/6	1.1089	1.1086	.9995	•2352E-04	.1826E-01	•7333
489.2419	1.4716	.1631	8.3793	173.9015	5.0669	1.1062	1.1078	.9995	.2391E-04	•1876E-01	• 7306
499.2419	1.2195	.2254	9.7800	175.6117	0.1036	1.1076	1.1071	. 4994	.2431E-04	·1926E-01	.7276
509.2419	1.0132	.2768	8.7818	177.3083	5.1381	1.1076	1.1065	. 7994	.247CE-04	.1976E-01	.7248
519.2419	.8440	•3388	8 • 98 46	178.9921	5.1702	1.1065	1.1059	.9994	.2509E-04	.2026E-01	.7218
529.2419	.7049	.4134	9.1887	190.6641	5.2001	1.1060	1.1054	.9993	.2547E-04	.207oE-01	.7187
539.2419	.5902	.5030	9.3936	102.3251	6.2277	1.1056	1.1050	. 9993	.2586E-04	·2126E-01	.7155
549.2419	.4955	.6103	9.5993	183.9764	6.2531	1.1053	1.1047	.9993	.2624E-04	·2176E-01	.7121
559.2419	•4170	.7383	9.8057	185.6192	5.2762	1.1050	1.1044	.9993	.2661E-34	.2227E-01	.7687
569.2419	.3519	.6907	10.0127	187.2547	5.2972	1.1049	1.1042	. 9993	.2699E-04	.2277E-01	.7051
579.2419	.2977	1.0713	10.2202	188.8845	6.3160	1.1047	1.1041	.9993	.2736E-04	.2327E-01	- 7014
588.8889	.2540	1.2767	10.4238	190.4524	5.3321	1.1047	1.1041	.9993	.2771E-04	.2376E-ul	.6978

TABLE III. - Concluded

				s	/R*11.000)					
T	٧	р	h ∕RT	a	c /R	γ	Υ _e	Z	μ	k	N _{Pr}
429.3742	11.1717	.(212	7.2093	163.3479	>.7975	1.1135	1.1134	.9998	.2147E-04	.1577E-01	.7458
439.3742	9.1098	.6266	7.4007	165.1571	> . 8 4 8 2	1.1124	1.1123	.9998	.2189E-04	.1627E-01	.7434
449.3742	7.4492	· (*332	7.5940	166.9482	5.8965	1.1114	1.1113	.9998	.22308-04	.1677E-J1	.7410
459.3742	6.1078 5.3213	.0414	7.7890 7.9856	168.7221 170.4793	5.9423 5.9859	1.1104 1.1096	1.1103	.9997 .9997	.2271E-04 .2312E-04	.1727E-01 .1776E-01	.7385 .7359
469.3742 479.3742	4.139u	.0515 .(t 38	8.1837	172.2206	5.0270	1.1088	1.1086	9997	.2352E-04	.1826E-01	.7332
489.3742	3.4206	.0788	8.3932	173.9465	6.06.6	1.1080	1.1078	9997	.2392L-04	.1876E-01	.7304
499.3742	2.5343	·C470	8.5841	175.6573	5.1022	1.1073	1.1.71	• 9997	.2431E-04	.1926Ē-J1	.7276
509.3742	2.3545	1192	8.7862	177.3550	5.1362	1.1067	1.1065	.9997	.2470E-04	.1976E-01	• 7246
519.3742	1.7610	.1459	8.9895	179.0389	5.1579	1.1061	1.1359	.9997 .9996	.2509E-04 .2547E-04	.2026E-01	.7216
529.3742 5 3 9.3742	1.6374	.1781 .2167	9.1939 9.3992	180.7101 192.3693	5.1973 6.2243	1.1056 1.1052	1.1054	.9996	.2585E-04	.2076E-01 .2126E-01	.7184 .7151
549.3742	1.1503	.2636	9.6355	194.6173	5.2490	1.1048	1.1045	.9996	.2623E-04	.2176E-U1	.7117
559.3742	.9678	.3183	9.8124	185.6248	6.2714	1.1045	1.1042	.9996	.2661E-04	.2226E-01	.7062
209.3742	.0162	.3842	10.0201	187.2826	o.2915	1.1042	1.1039	.9996	.2698E-04	.2276E-01	.7046
579.3742	.0902	.4623	10.2284	188.9017	0.3012	1.1039	1.1037	.9996	.2735t-04	.2326E-01	. 7008
584.8869	.5897	.5500	13.4270	190.4350	5.3240	1.1038	1.1035	.9996	•2770E-04	.2374E-01	•6971
				s	/K=11.5000	0					
τ	٧	р	h ∕RT	а	`c _p /R	γ	Υe	Z	μ	k	N_{Pr}
471.7946	11.1696	.0233	8.0338	170.9105	5.9955	1.1093	1.1342	. 9998	.2321t-04	.1788E-01	.7352
481.7946	9.2121	.6286	B . 2323	172.6487	6.0360	1.1085	1.1004	.9998	.2361E-04	.1838E-01	.7325
491.7946 501.7946	7.5180 6.3156	.0356 .6438	8.4323 8.6336	174.3717 176.0600	5.0741 5.1698	1.1078	1.1077	.9998 .9998	.2401E-04 .2440E-04	.1888E-01 .1938E-01	.7297 .7268
511.7946	5.2494	.0537	8.8361	177.7743	6.1431	1.1064	1.1064	.9998	.2479E-04	.1988E-U1	.7238
521.7946	4.3743	.0657	9.0399	179.4551	5.1741	1.1059	1.1058	. 9998	.2518E-04	.2038E-01	.7207
531.7945	3.6543	.0602	9.2446	131.1230	6.2026	1.1054	1.1052	.9998	.2556E-04	.2088E-01	.7175
541.7946	3.0605	.6975	9.4504	182.7765	6.2289	1.1049	1.1048	.9998	.2594E-04	.2138E-01	.7142
551.7946	2.5696	.1183	9.6570 9.8644	144.4223 196.0550	5.2527 5.2742	1.1045	1.1044	.9998 .9998	.2632E-04 .2669E-04	.2187E-01 .2237E-01	.7107 .7072
561.7946 571.7946	2.1627 1.824#	.1431 .1726	10.0726	187.6771	0.2933	1.1038	1.1037	.9998	.2707E-04	.2287E-01	.7035
581.7946	1.5435	.2076	10.2813	189.2893	5.3101	1.1035	1.1034	.9998	.2743E-04	.2337E-01	.6997
588.8889	1.3725	.2363	10.4297	190.4274	6.3205	1.1034	1.1033	.9998	•2769E-04	.2373E-01	.6969
				s	/R=12.000)					
T	٧	р	h∕RT	а	c _p ∕R.	γ	Υe	Z	μ	k	N _{Pr}
516.7863	11.1717	•0255	8.9381	170.6195	6.1584	1.1061	1.1061	.9998	.2499E-04	.2013E-01	.7223
526.7863	9.3200	.6311	9.1424	180.2937	6.1881	1.1055	1.1055	.9998	.2537E-04	.2063E-01	.7191
536.7863 546.7863	7•7952 6•5362	.0379 .0461	9.3477 9.5540	181.9551 183.6042	6.2154 5.2433	1.1050 1.1046	1.1050 1.1045	.9998 .9998	.2575E-04	.2112E-01	.7158
556.7863	5.4941	.0558	9.7612	185.2415	5.2628	1.1042	1.1041	.9998	.2613E-04 .2651t-04	.2162E-01 .2212E-01	.7124 .7089
566.7863	4.6296	.GE74	9.9691	186.8676	6.2830	1.1038	1.1038	9998	.2688E-04	.2262E-01	.7053
576.7863	3.9107	.0812	10.1777	188.4829	6.3007	1.1035	1.1035	.9998	.2725E-04	.2312E-01	.7015
586.7863	3.3114	.0976	10.3869	190.0879	0.3161	1.1033	1.1032	.9998	.2761E-04	.2362E-01	•69 76
584.8889	3.1982	.1614	10.4309	140.4241	5.3191	1.1032	1.1032	.9998	•2769E-04	.2372E-01	.6968
				s	/R=12.5000					1.	RI
Τ	٧	p	h∕RT	a	c _p ∕R	γ	Υe	Z	μ	k	N _{Pr}
564.7714	11.1717	.0278	9.9275	186.5417	6.2786	1.1039	1.1038	.9998	.2680E-04	.2252E-01	.7060
574.7714	9.4312	.0336	10.1360	188.1583	6.2968	1.1035	1.1035	.9998	.2717E-04	.2302E-01	.7022
584.7714 588.8889	7.4816 7.4560	.0404 .0435	10.3451 10.4314	189.7644 190.4227	6.3126 6.3184	1.1033	1.1032 1.1031	.9998 .9998	.2754E-04 .2769E-04	.2352E-01 .2372E-01	.6984 .6967
			,		4.244.						

TABLE IV.- THERMODYNAMIC AND TRANSPORT PROPERTIES $\qquad \qquad \text{OF } \text{CF}_{4} \text{ AT CONSTANT ENTROPY }$

				s	/R = 24.0000						
T	٧	р	h /RT	a	c _p ∕R	γ	Υ _e	Z	μ 2	k	N _{Pr}
K	m ³ ∕kg	atm		m/sec	•				N-s∕m²	W∕m-K	
224.9147 234.9147	.0026	34.1923 42.3870	9.5341 9.6112	102.9286 111.7056	63.3612 39.5330	8.8578 5.4776	1.1652 1.3175	.4279 .4268	.1958E-04 .22026-04	.1638E-01 .1875E-01	7.1544 4.3876
244.9147 253.1879	.0019	53.4287 65.6982	9.6989	125.1756	26.7621	3.7009 2.9172	1.5444	.4385	.2490E-04	.2151E-01 .2414E-01	2.9271
23311017	••••	03.0702	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	• (• (• (• (• (• (• (• (• (• (• (• (• (•	2000011	20.2.0					
				:	S/R=24.500			7		k	N
٢	٧	р	h∕RŤ	а	c _p ∕R	γ	Υe	Z	μ		N _{Pr}
218.2492	.0040	27.9155 34.1068	9.8594 9.9475	109.3885 111.9879	20.9160 22.1204	3.1035 3.2076	1.0629	.5460 .5297	.1639E-04 .1797E-04	.1342E-01 .1507E-01	2.4143
228.2492 238.2492	.0028	41.6825	10.0372	116.8573	21.9377	3.1267	1.1683	.5193	.1984E-04	.1696E-01	2.4236
248.2492	.0023	51.1977	10.1317	124.8923	20.3818	2.8714	1.2857	.5173	.2204E-04	•1913E-01	2.2181
258.2492	.0020	63.4868	10.2356	137.0299	18.1927	2.5407	1.4609	.5269	.2461E-04	.2163E-01	1.9556
268.2492	.0017	79.7543	10.3538	154.2523	16.1191 15.5446	2.2516 2.1713	1.7033 1.7958	.5512 .5627	.2761E-04 .2870E-04	.2449E-01	1.7164
271.4230	.0017	85.9998	10.3952	160.9584	13.3440	2.1113	1.1750	. 3021	120101-04	125402 01	110011
				:	s/R=25.000	D					
T	٧	P	h∕RT	а	c _p ∕R	γ	Υe	Z	μ	k	N _{Pr}
204.6224	.0072	17.9884	10.0373	119.5555	11.4587	1.8761	1.0872	.6801	.1382E-04	.1064E-01	1.4060
214.6224	.0059	22.3872	10.1496	120.0092	12.3747	1.9575	1.0775	.6592	.1482E-04	.1184E-01	1.4636
224.6224	.0048	27.6230	10.2592	120.8828	13.3254	2.0449	1.0771	.6394	.1595E-04	•1315E-01	1.5277
234.6224 244.6224	.0040 .0034	33.8521 41.3045	10.3669 10.4741	122.6071 125.7434	14.2182 14.8984	2.1258 2.1798	1.0909 1.1257	.6217 .6078	.1725E-04 .1876E-04	.1459E-01 .1620E-01	1.5883
254.6224	.0028	50.3348	10.5829	130.9721	15.1952	2.1853	1.1895	.5995	.2053E-04	.1802E-01	1.6356
264.6224	.0024	61.4671	10.6965	139.0706	15.0202	2.1324	1.2909	.5993	.2259E-04	.2008E-01	1.5965
274.6224	.0021	75.4830	10.8188	150.8607	14.4584	2.0340	1.4387	.6097	.2497E-04	.2241E-01	1.5214
284.6224	.0018	93.4779	10.9545	167.2003	13.7077	1.9167	1.6406	.6337	.2766E-04	.2506E-01	1.4295
291.0609	.0017	107.8384	11.0517	180.5435	13.2134	1.8425	1.8020	.6579	.2970E-04	.2694E-01	1.3765
				s	/R=25.5000)					
T	V	p	h ∕RT	a	c _p ∕R	γ	Υ _e	Z	μ	k	N _{Pr}
185.6875	.0156	8.8776	10.0194	127.1908	8.0535	1.5009	1.1492	.8025	.1190E-04	.8231E-02	1.0998
195.6875	.0125	11.4345	10.1594	128.2624	8.5277	1.5245	1.1327	.7856	.1263E-04	.9175E-02	1.1089
205.6875	.0101	14.5693	10.2975	129.1263	9.0373	1.5539	1.1176	.7678	.1340E-04	.1017E-01	1.1252
215.6875 225.6875	.0082 .0067	18.3706 22.9437	10.4332 10.5660	129.8870 130.6918	9.5839 10.1679	1.5898 1.6320	1.1048 1.0962	.7494 .7308	.1423E-04 .1515E-04	.1122E-01 .1235E-01	1.1482 1.1776
235.6875	.0055	28.4035	10.5560	131.7747	10.7779	1.6794	1.0962	.7128	.1616E-04	.1357E-01	1.2121
245.6875	.0046	34.8948	10.8237	133.4564	11.3875	1.7283	1.1019	.6964	.1731E-04	.1491E-01	1.2492
255.6875	.0038	42.6117	10.9501	136.1587	11.9487	1.7724	1.1242	.6827	.1863E-04	.1637E-01	1.2841
265.6875	.0032	51.8348	11.0765	140.4036	12.3947	1.8032	1.1665	.6733	.2015E-04	.1800E-01	1.3105
275.6875	.0027	62.9558	11.2057	146.8102	12.6538	1.8115	1.2350	.6701	.2191E-04	.1982E-01	1.3211
285.6875 295.6875	.0023 .0020	76.5558 93.4503	11.3406 11.4852	156.0600 168.8854	12.6897 12.5231	1.7931 1.7512	1.3368 1.4783	.6751 .6907	.2393E-04 .2624E-04	.2186E-01 .2416E-01	1.3122
305.6875	.0018	114.7520	11.6443	186.0488	12.2240	1.6949	1.6657	.7196	.2883E-04	.2672E-01	1.2458
311.9804	.0017	131.0571	11.7542	199.4150	12.0059	1.6569	1.8089	. 7459	.3073E-04	. 2846E-01	1.2238

TABLE IV.- Continued

				5	/R=26.0000)					
T	٧	Р	h/RT	a	c _p ∕R	γ	Υ _e	Z	μ	k	N_Pr
167.3852	.0362	3.8231	9.8817	129.5979	6.4883	1.3688	1.1978	.8868	.1047E-04	.6427E-02	.9969
177.3852	.0285	5.0881	10.0405	131.7817	6.8038	1.3725	1.1832	.8759	.1114E-04	.7258E-02	.9866
187.3852	.0225	6.6966	10.1999	133.6981	7.1332	1.3790	1.1688	.8640	.1182E-04	.8112E-02	.9816
197.3852	.0180	8.7215	10.3593	135.3569	7.4788	1.3885	1.1547	.8509	.1250E-04	.8993E-02	.9823
207.3852	.0144	11.2434	10.5180	136.7834	7.8427	1.4014	1.1412	.8368	.1320E-04	•9909E-02	.9872
217.3852	.0116	14.3517	10.6753	138.0231	8.2272	1.4181	1.1287	.8218	•1393E-04	.1087E-01	.9962
227.3852	.0094	18.1440	10.8305	139.1516	8.6339	1.4389	1.1181	.8062	.1470E-04	.1187E-01	1.0097
237.3852	.0077	22.7275	10.9834	140.2863	9.0632	1.4640	1.1105	•7902	.1553E-04	.1294E-01	1.0273
247.3852	.0063	28.2217	11.1336	141.5989	9.5119	1.4930	1.1077	.7745	.1644E-04	.1409E-01	1.0488
257.3852	.0052	34.7662	11.2813	143.3283	9.9715	1.5248	1.1118	.7599	.1746E-04	.1533E-01	1.0735
267.3852	.0044	42.5335	11.4272	145.7904	10.4244	1.5572	1.1261	.7472	.1862E-04	.1667E-01	1.0998
277.3852	.0037	51.7502	11.5723	149.3822	10.8429	1.5865	1.1544	.7377	.1993E-04	.1815E-01	1.1253
287.3852	.0031	62.7372	11.7182	154.5787	11.1918	1.6081	1.2011	.7328	.21458-04	.1977E-01	1.1466
297.3852	.0027	75.9152	11.8677	161.9295	11.4338	1.6173	1.2713	.7342	.2318E-04	.2158E-01	1.1600
307.3852	.0023	91.8977	12.0237	172.0391	11.5483	1.6115	1.3704	.7438	.2515E-04	.2359E-01	1.1631
317.3852	.0020	111.5172	12.1902	185.5628	11.5396	1.5916	1.5037	.7637	.2738E-04	.2583E-01	1.1556
327.3852	.0018	135.8863	12.3718	203.1870	11.4373	1.5611	1.6761	• 7964	.2986E-04	.2831E-01	1.1394
334.0753	.0017	155.5405	12.5044	217.5984	11.3379	1.5375	1.8147	.8268	.3179E-04	.3012E-01	1.1305
				,	7R=26.5000						
								-7		b	Ni
T	V	р	h ⁄RT	a	c / R	Y	Υ _e	Z	μ	k	N _{Pr}
•	-	•	h ∕RT 9•7141		c /R		γ e 1.2290	Z •9365	μ •9422E-05	.5130E-02	.9823
152.3411	.0824	p 1.6150 2.2060		a	c _p /R	Y			.9422E-05	.5130E-02	.9823 .9504
•	-	1.6150	9.7141	a 128.7022	c/R p 5.6610	Y 1.3174 1.3133 1.3109	1.2290 1.2158 1.2031	.9365 .9301 .9229	.9422E-05 .1007E-04 .1071E-04	.5130E-02 .5912E-02 .6704E-02	.9823 .9504 .9298
152.3411 162.3411 172.3411	.0824 .0638	1.6150	9.7141 9.8816	a 128.7022 131.6946	c/R p 5.6610 5.9087 6.1626 6.4238	Y 1.3174 1.3133 1.3109 1.3103	1.2290 1.2158 1.2031 1.1907	.9365 .9301 .9229	.9422E-05 .1007E-04 .1071E-04 .1135E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02	.9823 .9504 .9298 .9171
152.3411 162.3411	.0824 .0638 .0498	1.6150 2.2060 2.9789	9.7141 9.8816 10.0520	a 128.7022 131.6946 134.4565	C R p 5.6610 5.9087 6.1626 6.4238 6.6931	Y 1.3174 1.3133 1.3109 1.3103 1.3115	1.2290 1.2158 1.2031	.9365 .9301 .9229 .9149	.9422E-05 .1007E-04 .1071E-04 .1135E-04 .1200E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .8333E-02	.9823 .9504 .9298 .9171 .9103
152.3411 162.3411 172.3411 182.3411 192.3411	.0824 .0638 .0498 .0391	1.6150 2.2060 2.9789 3.9806	9.7141 9.8816 10.0520 10.2248	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652	C/R p 5.6610 5.9087 6.1626 6.4238 6.6931 6.9717	Y 1.3174 1.3133 1.3109 1.3103 1.3115 1.3147	1.2290 1.2158 1.2031 1.1907 1.1785 1.1666	.9365 .9301 .9229 .9149 .9060	.9422E-05 .1007E-04 .1071E-04 .1135E-04 .1200E-04 .1265E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .8333E-02	.9823 .9504 .9298 .9171 .9103
152.3411 162.3411 172.3411 182.3411	.0824 .0638 .0498 .0391	1.6150 2.2060 2.9789 3.9806 5.2660	9.7141 9.8816 10.0520 10.2248 10.3994 10.5751	a 128.7022 131.6946 134.4565 136.9869 139.2883	C/R p 5.6610 5.9087 6.1626 6.4238 6.6931 6.9717 7.2611	Y 1.3174 1.3133 1.3109 1.3103 1.3115 1.3147 1.3202	1.2290 1.2158 1.2031 1.1907 1.1785 1.1666 1.1550	.9365 .9301 .9229 .9149 .9060 .8962	.9422E-05 .1007E-04 .1071E-04 .1135E-04 .1200E-04 .1265E-04 .1331E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .833E-02 .9176E-02	.9823 .9504 .9298 .9171 .9103 .9080
152.3411 162.3411 172.3411 182.3411 192.3411 202.3411	.0824 .0638 .0498 .0391 .0309	1.6150 2.2060 2.9789 3.9806 5.2660 6.8997 8.9567 11.5191	9.7141 9.8816 10.0520 10.2248 10.3994 10.5751 10.7513	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026	C/R 5.6610 5.9087 6.1626 6.4238 6.6931 6.9717 7.2611	Y 1.3174 1.3133 1.3109 1.3103 1.3115 1.3147 1.3202 1.3281	1.2290 1.2158 1.2031 1.1907 1.1785 1.1666 1.1550 1.1441	.9365 .9301 .9229 .9149 .9060 .8962 .8854	.9422E-05 .1007E-04 .1071E-04 .1135E-04 .1200E-04 .1265E-04 .1331E-04 .1399E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .833E-02 .9176E-02 .1004E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9093
152.3411 162.3411 172.3411 182.3411 192.3411 202.3411 212.3411	.0824 .0638 .0498 .0391 .0309 .0245	1.6150 2.2060 2.9789 3.9806 5.2660 6.8997 8.9567	9.7141 9.8816 10.0520 10.2248 10.3994 10.5751	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026 146.4255	C/R 5.6610 5.9087 6.1626 6.4238 6.6931 6.9717 7.2611 7.5624 7.8773	Y 1.3174 1.3133 1.3109 1.3115 1.3147 1.3202 1.3281 1.3387	1.2290 1.2158 1.2031 1.1907 1.1785 1.1666 1.1550 1.1441 1.1342	.9365 .9301 .9229 .9149 .9060 .8962 .8854 .8737	.9422E-05 .1007E-04 .1071E-04 .1135E-04 .1200E-04 .1265E-04 .1331E-04 .139E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .8333E-02 .9176E-02 .1004E-01 .1188E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9093 .9134
152.3411 162.3411 172.3411 182.3411 192.3411 202.3411 212.3411 222.3411	.0824 .0638 .0498 .0391 .0309 .0245 .0196	1.6150 2.2060 2.9789 3.9806 5.2660 6.8997 8.9567 11.5191 14.6832 18.5521	9.7141 9.8816 10.0520 10.2248 10.3994 10.5751 10.7513 10.9274 11.1025 11.2760	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026 146.4255 147.8619	C R 5.6610 5.9087 6.1626 6.4238 6.6931 6.9717 7.2611 7.5624 7.8773 8.2071	Y 1.3174 1.3133 1.3103 1.3103 1.3115 1.3147 1.3202 1.3281 1.3387 1.3523	1.2290 1.2158 1.2031 1.1907 1.1785 1.1666 1.1550 1.1441 1.1342 1.1259	.9365 .9301 .9229 .9149 .9060 .8962 .8854 .6737 .8613	.9422E-05 .1007E-04 .1071E-04 .1135E-04 .1200E-04 .1265E-04 .1331E-04 .1399E-04 .1468E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .8333E-02 .1004E-01 .1084E-01 .1188E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9093 .9134 .9199 .9293
152.3411 162.3411 172.3411 182.3411 192.3411 202.3411 212.3411 222.3411 232.3411	.0824 .0638 .0498 .0391 .0309 .0245 .0196 .0157 .0127 .0103	1.6150 2.2060 2.9789 3.9806 5.2660 6.8997 8.9567 11.5191 14.6832 18.5521 23.2396	9.7141 9.8816 10.0520 10.2248 10.3994 10.5751 10.7513 10.9274 11.1025 11.2760 11.4476	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026 146.4255 147.8619 149.3090	C/R p 5.6610 5.9087 6.1626 6.4238 6.6931 7.2611 7.5624 7.8773 8.2071 8.5521	Y 1.3174 1.3133 1.3103 1.3103 1.3115 1.3147 1.3202 1.3281 1.3387 1.3523 1.3689	1.2290 1.2158 1.2031 1.1907 1.1785 1.1666 1.1550 1.1441 1.1342 1.1259 1.1201	.9365 .9301 .9229 .9149 .9060 .8962 .8854 .6737 .8613 .8482	.9422E-05 .1007E-04 .1071E-04 .1200E-04 .1200E-04 .1331E-04 .1391E-04 .1468E-04 .1619E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .8333E-02 .9176E-01 .1094E-01 .1188E-01 .1286E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9093 .9134 .9199 .9293
152.3411 162.3411 172.3411 182.3411 192.3411 202.3411 212.3411 222.3411 232.3411 242.3411 252.3411 252.3411	.0824 .0638 .0498 .0391 .0309 .0245 .0196 .0157 .0127	1.6150 2.2060 2.9789 3.9806 5.2660 6.8997 8.9567 11.5191 14.6832 18.5521 23.2396 28.8718	9.7141 9.8816 10.0520 10.2248 10.3994 10.5751 10.7513 10.9274 11.1025 11.2760 11.4476 11.6168	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026 146.4255 147.8619 149.3090 150.9074	CPR 5.6610 5.9087 6.1626 6.4238 6.6931 7.5624 7.8773 8.2071 8.5521 8.9114	Y 1.3174 1.3133 1.3109 1.3103 1.3147 1.3202 1.3281 1.3523 1.3689 1.3884	1.2290 1.2158 1.2031 1.1907 1.1785 1.1666 1.1550 1.1441 1.1342 1.1259 1.1201 1.1181	.9365 .9301 .9229 .9149 .9060 .8862 .6737 .8613 .8482 .8349	.9422E-05 .1007E-04 .1071E-04 .1135E-04 .1200E-04 .1265E-04 .1331E-04 .1468E-04 .1541E-04 .1619E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .8333E-02 .9176E-02 .1004E-01 .1188E-01 .1286E-01 .1389E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9093 .9134 .9199 .9293 .9417
152.3411 162.3411 172.3411 182.3411 202.3411 212.3411 222.3411 232.3411 242.3411 252.3411 252.3411 252.3411 262.3411 272.3411	.0824 .0638 .0498 .0391 .0309 .0245 .0196 .0157 .0127 .0103 .0085	1.6150 2.2060 2.9789 3.9806 5.2660 6.89567 11.5191 14.6832 18.5521 23.2396 28.8718	9.7141 9.8816 10.0520 10.2248 10.3994 10.5751 10.7513 10.9274 11.1025 11.2760 11.4476 11.6168 11.7837	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026 146.4255 147.8619 149.3090 150.9074 152.8497	CPR 5.6610 5.9087 6.1626 6.4238 6.6931 6.9717 7.2611 7.5624 7.8773 8.2071 8.5521 8.9114 9.2814	Y 1.3174 1.3133 1.3109 1.3103 1.3147 1.3202 1.3281 1.3387 1.3523 1.3689 1.3689	1.2290 1.2158 1.2031 1.1907 1.1785 1.1666 1.1550 1.1441 1.1342 1.1259 1.1201 1.1181	.9365 .9301 .9229 .9149 .9060 .8962 .8854 .6737 .8613 .8482 .8349 .8218	.9422E-05 .1007E-04 .1071E-04 .1135E-04 .1205E-04 .1265E-04 .1331E-04 .1399E-04 .1468E-04 .1619E-04 .1704E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .8333E-02 .9176E-02 .1004E-01 .1094E-01 .1286E-01 .1286E-01 .1389E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9093 .9134 .9199 .9293 .9417 .9569
152.3411 162.3411 172.3411 182.3411 192.3411 202.3411 212.3411 222.3411 232.3411 242.3411 252.3411 252.3411	.0824 .0638 .0498 .0391 .0309 .0245 .0196 .0157 .0127 .0103 .0085	1.6150 2.2060 2.9789 3.9806 5.2660 6.8997 8.9567 11.5191 14.6832 18.5521 23.2396 28.8718 35.5915 43.5676	9.7141 9.8816 10.0520 10.2248 10.3994 10.5751 10.7513 10.9274 11.1025 11.2760 11.4476 11.6168 11.7837 11.9487	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026 146.4255 147.8619 149.3090 150.9074 152.8497	CPR 5.6610 5.9087 6.1626 6.4238 6.6931 6.9717 7.2611 7.5624 7.8773 8.2071 8.5521 8.9114 9.2814 9.6540	Y 1.3174 1.3133 1.3109 1.3103 1.3115 1.3147 1.3202 1.3281 1.3689 1.3689 1.3884 1.4105	1.2290 1.2158 1.2031 1.1907 1.1785 1.1666 1.1550 1.1441 1.1342 1.1259 1.1201 1.1181 1.1218 1.1218	.9365 .9301 .9229 .9149 .9060 .8962 .8854 .6737 .8613 .8482 .8349 .8218 .8095	.9422E-05 .1007E-04 .1071E-04 .1135E-04 .1200E-04 .1255E-04 .1331E-04 .1399E-04 .1541E-04 .1619E-04 .1704E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .8333E-02 .9176E-02 .1004E-01 .1188E-01 .1286E-01 .1389E-01 .1499E-01 .1616E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9134 .9199 .9293 .9417 .9569 .9749
152.3411 162.3411 172.3411 182.3411 192.3411 202.3411 212.3411 232.3411 232.3411 252.3411 252.3411 272.3411 262.3411 272.3411 282.3411	.0824 .0638 .0498 .0391 .0309 .0245 .0196 .0157 .0127 .0103 .0085 .0070 .0058	1.6150 2.2060 2.9789 3.9806 5.2660 6.8997 11.5191 14.6832 18.5521 23.2396 28.8718 35.5915 43.5676 53.0103	9.7141 9.8816 10.0520 10.2248 10.3794 10.7751 10.77513 10.9274 11.1025 11.2760 11.4476 11.6168 11.7837 11.9487 12.1126	28.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026 146.4255 147.8619 149.3090 150.9074 152.8497 155.3887	CPR 5.6610 5.9087 6.1626 6.4238 6.6931 6.9717 7.2611 7.5624 7.8773 8.2071 8.5521 8.9114 9.2814 9.2814 9.01061	Y 1.3174 1.3133 1.3103 1.3115 1.3115 1.3202 1.3281 1.3387 1.3689 1.3689 1.44105 1.4572	1.2290 1.2158 1.2031 1.1907 1.1785 1.1666 1.1550 1.1441 1.1342 1.1259 1.1201 1.1181 1.1333 1.1554	.9365 .9301 .9229 .9149 .9060 .8962 .8854 .6737 .8613 .8482 .8349 .8218 .8095 .7988	.9422E-05 .1007E-04 .1071E-04 .1135E-04 .1205E-04 .1265E-04 .1331E-04 .1399E-04 .1468E-04 .1541E-04 .1704E-04 .1797E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .8333E-02 .9176E-02 .1004E-01 .1188E-01 .1286E-01 .1389E-01 .1499E-01 .1616E-01 .1743E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9093 .9134 .9199 .9293 .9417 .9569 .9749 .9749
152.3411 162.3411 172.3411 182.3411 202.3411 212.3411 222.3411 232.3411 242.3411 252.3411 262.3411 272.3411 282.3411 282.3411	.0824 .0638 .0498 .0391 .0309 .0245 .0157 .0127 .0103 .0085 .00758 .0048	1.6150 2.2060 2.9789 3.9806 5.2660 6.8997 11.5191 14.6832 18.5521 23.2396 28.8718 35.5915 43.5676 53.0103	9.7141 9.8816 10.0520 10.2248 10.3994 10.5751 10.7513 10.9274 11.1025 11.2760 11.4476 11.6168 11.7837 11.9487 12.2126	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026 146.4255 147.8619 149.3090 150.9074 152.8497 155.3887 163.5882	CPR 5.6610 5.9087 6.1626 6.4238 6.6931 6.9717 7.2611 7.5624 7.8773 8.2071 8.5521 8.9114 9.6840 10.0161 10.3494	Y 1.3174 1.3133 1.3109 1.3103 1.3103 1.3202 1.3281 1.3281 1.3387 1.3689 1.3884 1.4340 1.4372 1.4778	1.2290 1.2158 1.2031 1.1907 1.1785 1.1550 1.1441 1.1342 1.1259 1.1201 1.1333 1.1554 1.1916	.9365 .9301 .9229 .9149 .9060 .8962 .8854 .6737 .8613 .8482 .8349 .8218 .8095 .7988 .7986	.9422E-05 .1007E-04 .1071E-04 .120E-04 .1205E-04 .1331E-04 .1399E-04 .1541E-04 .1541E-04 .1704E-04 .1797E-04 .201E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .8333E-02 .9176E-02 .1004E-01 .1188E-01 .1286E-01 .1389E-01 .149E-01 .1416E-01 .1743E-01 .1681E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9093 .9134 .9199 .9293 .9417 .9569 .9749 .9749 .9750 1.0162
152.3411 162.3411 172.3411 182.3411 192.3411 202.3411 222.3411 232.3411 232.3411 252.3411 262.3411 272.3411 272.3411 282.3411 282.3411 282.3411 392.3411	.0824 .0638 .04391 .0399 .0245 .0196 .0157 .0127 .0103 .0085 .0070 .0058 .0048 .0041	1.6150 2.2060 2.9789 3.9806 5.2660 6.8997 8.9567 11.5191 14.6832 18.5521 23.2396 28.8718 35.5915 43.55676 53.0103 64.2039 77.4999	9.7141 9.8816 10.0520 10.2248 10.3994 10.5751 10.7513 10.9274 11.1025 11.2760 11.4476 11.668 11.7837 12.1126 12.2766	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026 146.4255 147.8619 149.3090 150.9074 152.8497 158.88413 163.5882 170.0749	CPR 5.6610 5.9087 6.1626 6.4238 6.6931 7.2611 7.5624 7.8773 8.2071 8.5521 8.9114 9.2814 9.2814 9.6540 10.3494	Y 1.3174 1.3133 1.3109 1.3103 1.3115 1.3147 1.3202 1.3281 1.3387 1.3689 1.3684 1.4105 1.4778 1.4772 1.4772	1.2290 1.2158 1.2031 1.1907 1.1785 1.1666 1.1550 1.1441 1.1342 1.1259 1.1201 1.1181 1.1218 1.1333 1.1554 1.1916	.9365 .9301 .9229 .9149 .9060 .8962 .8854 .6737 .8613 .8482 .8349 .8218 .8095 .7988 .7907 .7871	.9422E-05 .1007E-04 .1071E-04 .1135E-04 .1200E-04 .1265E-04 .1331E-04 .1541E-04 .1541E-04 .1797E-04 .1797E-04 .2021E-04 .2156E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .8333E-02 .9176E-02 .1004E-01 .1188E-01 .1286E-01 .1289E-01 .1499E-01 .1743E-01 .1616E-01 .2032E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9093 .9134 .9199 .9293 .9417 .9569 .9749 .9750 1.0162 1.0550
152.3411 162.3411 172.3411 182.3411 202.3411 212.3411 222.3411 232.3411 242.3411 252.3411 262.3411 262.3411 262.3411 282.3411 382.3411 382.3411	.0824 .0638 .0498 .0399 .0245 .0157 .0127 .0103 .0085 .0070 .0058 .0048 .0048	1.6150 2.2060 2.9789 3.9789 5.2660 6.8997 11.5191 14.6832 18.5521 23.2396 28.8718 35.5915 43.5676 53.0103 64.2039 77.4999 93.4041	9.7141 9.8816 10.0520 10.2248 10.3794 10.5751 10.7513 10.9274 11.1025 11.2760 11.4476 11.6168 11.7837 11.9487 12.1126 12.2766 12.4430	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026 146.4255 147.8619 149.3090 150.9074 152.8497 155.3887 158.8413 163.5882 170.0749 176.8008	CPR 5.6610 5.9087 6.1626 6.4238 6.6931 6.9717 7.2611 7.5624 7.8773 8.2071 8.5521 8.9114 9.2814 9.2814 9.6540 10.3494 10.6306 10.8404	Y 1.3174 1.3133 1.3109 1.31315 1.3147 1.3202 1.3281 1.3387 1.3689 1.3689 1.46927 1.4778 1.4927 1.4994	1.2290 1.2158 1.2031 1.1785 1.1666 1.1550 1.1441 1.1349 1.1201 1.1218 1.1218 1.1218 1.1218 1.1333 1.1554 1.1916 1.2455 1.3214	.9365 .9301 .9229 .9149 .9060 .8854 .6737 .84613 .8482 .8349 .8218 .8095 .7988 .7988 .7987 .7987	.9422E-05 .1007E-04 .1071E-04 .1135E-04 .1205E-04 .1265E-04 .1331E-04 .1399E-04 .1648E-04 .1704E-04 .1777E-04 .1792E-04 .2021E-04 .2021E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .8333E-02 .9176E-02 .1004E-01 .1188E-01 .1286E-01 .1389E-01 .149E-01 .1616E-01 .1743E-01 .1881E-01 .2032E-01 .2198E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9093 .9134 .9199 .9293 .9417 .9569 .9749 .9749 .10162 1.0550
152.3411 162.3411 172.3411 182.3411 192.3411 212.3411 222.3411 232.3411 242.3411 252.3411 262.3411 272.3411 282.3411 282.3411 312.3411 312.3411 312.3411	.0824 .0638 .0498 .0391 .0309 .0245 .0157 .0157 .0103 .0085 .0070 .0058 .0048 .0048 .0048 .0035	1.6150 2.2060 2.9789 3.9806 5.2660 6.8997 11.5191 14.6832 18.5521 23.2396 28.8718 43.5676 53.0103 64.2039 77.4999 93.4041 112.5926	9.7141 9.8816 10.0520 10.2248 10.3994 10.5751 10.7513 10.9274 11.1025 11.2760 11.4476 11.6168 11.7837 12.1126 12.2766 12.2766 12.4430 12.6142 12.7936	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026 146.4255 147.8619 150.9074 152.8497 155.3887 156.8497 156.8497 178.8008 170.0749 178.8008	CPR 5.6610 5.9087 6.1626 6.4238 6.6931 7.72611 7.5624 7.8773 8.2071 8.5521 8.9114 9.2814 9.2814 9.6540 10.3494 10.6306 10.8404 10.9674	Y 1.3174 1.3133 1.3109 1.3103 1.3147 1.3202 1.3281 1.3387 1.3689 1.3884 1.4105 1.4572 1.4778 1.4927 1.49945	1.2290 1.2158 1.2031 1.1785 1.1666 1.1550 1.1441 1.1342 1.1259 1.1201 1.1218 1.1218 1.1333 1.1554 1.1916 1.2455 1.3214	.9365 .9301 .9229 .9149 .9060 .8962 .88737 .8613 .8482 .8349 .8218 .8095 .7987 .7987 .7987 .7987 .7987 .7987 .7987 .7987 .7987	.9422E-05 .1007E-04 .1071E-04 .1205E-04 .1205E-04 .1331E-04 .1399E-04 .1541E-04 .1541E-04 .1704E-04 .1792E-04 .2021E-04 .2309E-04 .2484E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .83333E-02 .9176E-02 .1004E-01 .1188E-01 .1286E-01 .1389E-01 .149E-01 .1743E-01 .1743E-01 .2032E-01 .2381E-01 .2381E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9134 .9199 .9417 .9569 .9749 .9750 1.0162 1.0370 1.0683 1.0753
152.3411 162.3411 172.3411 182.3411 192.3411 202.3411 222.3411 232.3411 232.3411 252.3411 252.3411 272.3411 272.3411 272.3411 282.3411 382.3411 382.3411 382.3411 382.3411	.0824 .0638 .0439 .0399 .0245 .0157 .0157 .0103 .0085 .0070 .0058 .0041 .0035 .0085 .0040	1.6150 2.2060 2.9789 3.9806 5.2660 6.8997 8.9567 11.5191 14.6832 18.5521 23.2396 28.8718 35.5915 43.5676 53.0103 64.2039 77.4999 93.4041 112.5926 135.9678	9.7141 9.8816 10.0520 10.2248 10.3994 10.5751 10.7513 10.9274 11.1025 11.2760 11.4476 11.6168 11.7837 11.9487 12.1126 12.2766 12.4430 12.6142 12.7936	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026 146.4255 147.8619 159.3847 155.3887 158.8437 158.8432 170.0749 178.8008 190.3224	CPR 5.6610 5.9087 6.1626 6.4238 6.6931 7.2611 7.5624 7.8773 8.2071 8.5521 9.2814 9.6540 10.3494 10.6306 10.8404 11.0144	Y 1.3174 1.3133 1.3103 1.3115 1.3120 1.3202 1.3281 1.3387 1.3689 1.4572 1.4727 1.4727 1.4944 1.4965	1.2290 1.2158 1.2031 1.1907 1.1785 1.1666 1.1550 1.1441 1.1201 1.1201 1.1218 1.1218 1.1333 1.1554 1.1916 1.2455 1.3214 1.4235 1.5564	.9365 .9301 .9229 .9149 .9060 .8854 .6737 .8613 .8482 .8349 .8218 .8095 .7987 .7863 .7987 .7863 .7945 .81369	.9422E-05 .1007E-04 .1071E-04 .1135E-04 .1200E-04 .1265E-04 .1331E-04 .1399E-04 .1541E-04 .1541E-04 .1704E-04 .1797E-04 .1902E-04 .2021E-04 .2309E-04 .2484E-04 .2682E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .8333E-02 .9176E-01 .1094E-01 .1188E-01 .1286E-01 .1389E-01 .1499E-01 .1498E-01 .1743E-01 .1743E-01 .2032E-01 .2198E-01 .2584E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9093 .9134 .9199 .9293 .9417 .9569 .9759 .9750 1.0162 1.0550 1.0683 1.0757
152.3411 162.3411 172.3411 182.3411 192.3411 212.3411 222.3411 232.3411 242.3411 252.3411 262.3411 272.3411 282.3411 282.3411 312.3411 312.3411 312.3411	.0824 .0638 .0498 .0391 .0309 .0245 .0157 .0157 .0103 .0085 .0070 .0058 .0048 .0048 .0048 .0035	1.6150 2.2060 2.9789 3.9806 5.2660 6.8997 11.5191 14.6832 18.5521 23.2396 28.8718 43.5676 53.0103 64.2039 77.4999 93.4041 112.5926	9.7141 9.8816 10.0520 10.2248 10.3994 10.5751 10.77513 10.9274 11.1025 11.2760 11.4476 11.6168 11.7837 12.1126 12.2766 12.2766 12.4430 12.6142 12.7936	a 128.7022 131.6946 134.4565 136.9869 139.2883 141.3652 143.2279 144.9026 146.4255 147.8619 150.9074 152.8497 155.3887 156.8497 156.8497 178.8008 170.0749 178.8008	CPR 5.6610 5.9087 6.1626 6.4238 6.6931 7.72611 7.5624 7.8773 8.2071 8.5521 8.9114 9.2814 9.2814 9.6540 10.3494 10.6306 10.8404 10.9674	Y 1.3174 1.3133 1.3109 1.3103 1.3147 1.3202 1.3281 1.3387 1.3689 1.3884 1.4105 1.4572 1.4778 1.4927 1.49945	1.2290 1.2158 1.2031 1.1785 1.1666 1.1550 1.1441 1.1342 1.1259 1.1201 1.1218 1.1218 1.1333 1.1554 1.1916 1.2455 1.3214	.9365 .9301 .9229 .9149 .9060 .8962 .88737 .8613 .8482 .8349 .8218 .8095 .7987 .7987 .7987 .7987 .7987 .7987 .7987 .7987 .7987	.9422E-05 .1007E-04 .1071E-04 .1205E-04 .1205E-04 .1331E-04 .1399E-04 .1541E-04 .1541E-04 .1704E-04 .1792E-04 .2021E-04 .2309E-04 .2484E-04	.5130E-02 .5912E-02 .6704E-02 .7510E-02 .83333E-02 .9176E-02 .1004E-01 .1188E-01 .1286E-01 .1389E-01 .149E-01 .1743E-01 .1743E-01 .2032E-01 .2381E-01 .2381E-01	.9823 .9504 .9298 .9171 .9103 .9080 .9134 .9199 .9417 .9569 .9749 .9750 1.0162 1.0370 1.0683 1.0753

TABLE IV .- Continued

				;	s /R=27.000	0					
T	٧	р	h∽RT	а	c R	γ	Υ _e	Z	μ	k	$^{N}_{Pr}$
140.3462	.1807	.6985	9.5552	126.4256	5.1779	1.2975	1.2499	.9645	.8621E-05	.4165E-02	1.0126
150.3462	.1383	•9738	9.7251	129.9367	5.3923	1.2895	1.2372	.9608	.9260E-05	•4925E-02	.9578
160.3462	.1067	1.3410	9.8995	133.2475	5.6093	1.2828	1.2252	.9567	.9893E-05	.5690E-02	.9213
170.3462 180.3462	.0828 .0646	1.8267 2.4633	10.0779 10.2599	136.3613 139.2813	5.8297 6.0537	1.2775 1.2735	1.2137 1.2027	.9520 .9468	.1052E-04 .1115E-04	.6462E-02	.8967 .8802
190.3462	.0507	3.2903	10.4452	142.0084	6.2820	1.2708	1.1920	.9409	.1177E-04	.8033E-02	.8695
200.3462	.0401	4.3556	10.6331	144.5439	6.5151	1.2695	1.1816	.9342	.1239E-04	.8836E-02	.8633
210.3462	.0318	5.7161	10.8231	146.8903	6.7540	1.2697	1.1715	9269	.1302E-04	.9655E-02	.8605
220.3462	.0254	7.4403	11.0145	149.0520	6.9996	1.2714	1.1617	.9187	.1365E-04	.1049E-01	.8605
230.3462	.0204	9.5997	11.2069	151.0489	7.2522	1.2749	1.1524	.9098	.1429E-04	.1135E-01	.8627
240.3462	.0164	12.2902	11.3993	152.8951	7.5139	1.2803	1.1438	.9002	.1495E-04	.1224E-01	.8669
250.3462	.0133	15.6064	11.5912	154.6343	7.7853	1.2877	1.1361	.8899	.1561E-04	.1316E-01	.8725
260.3462 270.3462	•0109 •0089	19.6591 24.5693	11.7819 11.9711	156.3253 158.0563	8.0673 8.3606	1.2974 1.3093	1.1301	•8792 •8684	.1631E-04	.1413E-01	.8801
280.3462	.0074	30.4709	12.1582	159.9510	8.6647	1.3236	1.1264	.8578	.1706E-04 .1786E-04	.15146-01 .16216-01	.8899 .9019
290.3462	.0061	37.5142	12.3434	162.1762	8.9777	1.3398	1.1307	.8481	.1874E-04	.1735E-01	.9162
300.3462	. £0051	45.8728	12.5268	164.9467	9.2952	1.3575	1.1419	.8398	.1972E-04	.1858E-01	.9324
310.3462	.0043	55.7557	12.7092	168.5287	9.6098	1.3757	1.1619	.8338	.2082E-04	.1990E-01	.9501
320.3462	.0037	67.4375	12.8915	173.2411	9.9110	1.3929	1.1933	.8311	.2207E-04	.2133E-01	.9686
330.3462	.0032	81.2389	13.0758	179.4554	10.1841	1.4073	1.2390	.8329	.2348E-04	.2290E-01	.9864
340.3462	.0027	97.6155	13.2642	187.5934	10.4153	1.4170	1.3023	.8405	.2508E-04	.2462E-01	1.0023
350.3462	.0024	117.1615	13.4596	198.1318	10.5931	1.4207	1.3867	.8554	.2688E-04	.2651E-01	1.0149
360.3462	.0021 .0019	140.6613	13.6655 13.8862	211.6047 228.5922	10.7123	1.4176	1.4959	.8793 .9142	.2889E-04	.2858E-01	1.0231
370.3462 380.3462	.0019	169.1376 203.8933	14.1267	249.6684	10.7768 10.7991	1.4084 1.3945	1.6338	.9622	.3112E-04 .3367E-04	.3086E-01	1.0268 1.0298
381.3788	.0017	207.8988	14.1529	252.0961	10.7997	1.3929	1.8222	.9680	.3395E-04	.3362E-01	1.0304
					/R=27.5000			7			8.6
T	٧	р	h∕RT	a	c _p ∕R	Y	Υ _e	. Z	μ	k	N _{Pr}
130.6630	.3821	•3125	9.4153	123.7217	4.8703	1.2917	1.2654	.9800	.7985E- 0 5	.3414E-02	1.0762
140.6630	.2898	•4426	9.5845	127.5745	5.0673	1.2813	1.2524	9779	.8626E-05	.4164E-02	.9917
150.6630	.2214	•6191	9.7590	131.2386	5.2652	1.2721 1.2642	1.2404	.9756 .9729	.9260E-05	.4917E-02	.9367 .8996
160.6630 170.6630	.1703 .1319	.8557 1.1705	9.9386 10.1230	134.7252 138.0416	5.4644 5.6649	1.2574	1.2186	9699	.1051E-04	.6434E-02	.8739
180.6630	.1027	1.5856	10.3118	141.1926	5.8672	1.2516	1.2085	.9665	.1112E-04	.7199E-02	.8561
190.6630	.0804	2.1289	10.5048	144.1810	6.0715	1.2469	1.1989	.9626	.1173E-04	.7971E-02	.8439
200.6630	.0633	2.8343	10.7016	147.0087	6.2782	1.2433	1.1897	.9583	.1233E-04	.8751E-02	.8360
210.6630	.0500	3.7435	10.9016	149.6770	6.4877	1.2408	1.1808	.9533	.1294E-04	.9541E-02	.8312
220.6630	•0397	4.9064	11.1045	152.1882	6.7007	1.2394	1.1722	.9478	.1354E-04	.1034E-01	.8289
230.6630	.0317	6.3835	11.3096	154.5457 156.7623	6.9179	1.2392	1.1639	.9417 .9350	.1415E-04 .1476E-04	.1116E-01 .1199E-01	.8287 .8302
240.6630 250.6630	.0255 .0205	8.2400 10.5645	11.5164 11.7242	158.8465	7.1396 7.3672	1.2427	1.1487	.9276	.1539E-04	.1285E-01	.8332
260.6630	.0166	13.4439	11.9325	160.8284	7.6012	1.2467	1.1421	.9197	.1602E-04	.1374E-01	.8376
270.6630	.0135	16.9838	12.1404	162.7465	7.8426	1.2523	1.1365	.9114	.1667E-04	-1465E-01	.8428
280.6630	.0111	21.3004	12.3476	164.6595	8.0923	1.2597	1.1326	.9029	.1734E-04	.1560E-01	.8495
290.6630	.0091	26.5220	12.5535	166.6514	8.3505	1.2688	1.1310	.8943	.1806E-04	.1660E-01	. 8578
300.6630	.0076	32.7909	12.7578	168.8362	8.6173	1.2798	1.1325	.8861	.1883E-04	.1766E-01	.8680
310.6630	.0063	40.2662	12.9605	171.3643	8.8913	1.2924	1.1385	.8788	.1967E-04	.1878E-01	.8799
320.6630 330.6630	.0053 .0045	49.1297 59.5959	13.1617 13.3622	174.4255 178.2514	9.1699 9.4482	1.3062 1.3206	1.1504	.8730 .8694	.2060E-04 .2165E-04	.1997E-01 .2126E-01	.8936 .9089
340.6630	.0045	71.9421	13.5628	183.1175	9.4482	1.3208	1.1992	.8688	.2183E-04	.2265E-01	.9252
350.6630	.0033	86.4754	13.7652	189.3418	9.9742	1.3473	1.2405	.8724	.2414E-04	.2415E-01	.9419
360.6630	.0029	103.6294	13.9716	197.2882	10.2024	1.3571	1.2964	.8812	.2563E-04	.2579E-01	.9579
370.6630	.0025	123.9545	14.1844	207.3722	10.3947	1.3629	1.3699	.8965	.2731E-04	.2759E-01	.9722
380.6630	.0022	148.1666	14.4069	220.0674	10.5449	1.3639	1.4642	.9198	.2918E-04	.2955E-01	.9839
390.6630	.0020	177.1916	14.6430	235.9036	10.6518	1.3601	1.5826	9528	.3126E-04	.3169E-01	.9924
400.6630 406.4064	.0018 .0017	212.2081 235.5815	14.8973 15.0536	255•4347 268•5171	10.7203 10.7464	1.3521	1.7280	.9976 1.0294	.3355E-04 .3505E-04	.3404E-01 .3547E-01	.9982 1.0030

TABLE IV .- Continued

				:	7R=28.0000)					
T	٧	p	h /RT	a	c _p /R	γ	γ _e	Z	μ	k	N _{Pr}
122.6793 132.6793	.7831 .5889	.1444	9.2949	120.9973	4.6583	1.2926	1.2778	.9886	.7463E-05	.2807E-02	
142.6793	.4468	.2074 .2936	9.4620	125.0891 128.9939	4.8461 5.0340	1.2804 1.2696	1.2642 1.2518	.9875 .9862	.8108E-05	.3553E-02 .4299E-02	1.0448 .9673
152.6793	.3413	.4107	9.8133	132.7269	5.2219	1.2600	1.2404	.9847	.9374E-05	.5048E-02	.9161
162.6793	.2625	.5679	9.9973	136.3004	5.4100	1.2515	1.2298	.9829	.9994E-05	.5799E-02	.8809
172.6793 182.6793	.2031 .1580	.7776	10.1865	139.7232	5.5984	1.2440	1.2199	.9810	-1061E-04	.6552E-02	.8562
192.6793	.1236	1.0550 1.4192	10.3808 10.5798	143.0018 146.1409	5.7873 5.9768	1.2374	1.2106	.9788 .9762	.1121E-04 .1181E-04	.7309E-02	.8388 .8265
202.6793	.0971	1.8943	10.7834	149.1436	6.1673	1.2268	1.1935	.9734	.1241E-04	.8836E-02	.8180
212.6793	.0766	2.5098	10.9911	152.0120	6.3589	1.2229	1.1855	.9701	.1300E-04	.9609E-02	.8124
222.6793	.0608 .0484	3.3017 4.3140	11.2025	154.7480	6.5521	1.2198	1.1779	.9665	.1358E-04	.1039E-01	.8092
232.6793 242.6793	.0387	5.6000	11.4173 11.6350	157.3540 159.8329	6.7472 6.9449	1.2175	1.1705	•9624 •9578	.1417E-04 .1475E-04	.1118E-01 .1198E-01	.8077 .8078
252.6793	.0311	7.2197	11.8550	162.1937	7.1453	1.2159	1.1568	.9527	.1534E-04	.1280E-01	.8092
262.6793	.0251	9.2487	12.0768	164.4453	7.3495	1.2167	1.1505	.9472	.1594E-04	.1363E-01	.8117
272.6793	•0203	11.7710	12.2998	166.6064	7.5580	1.2186	1.1449	.9412	·1654E-04	.1449E-01	.8152
282.6793 292.6793	.0166 .0135	14.8835	12.5233	168.7053	7.7715	1.2218	1.1401	•9348	.1716E-04	.1537E-01	.8196
302.6793	.0111	18.6956 23.3294	12.7469 12.9699	170.7833 172.8996	7.9909 8.2167	1.2263	1.1364	.9282 .9216	.1778E-04	.1628E-01 .1723E-01	.8245 .8306
312.6793	.0092	28.9207	13.1920	175.1357	8.4494	1.2395	1.1347	.9151	1913E-04	.1822E-01	.8380
322.6793	.0077	35.6201	13.4129	177.5994	8.6889	1.2483	1.1381	•9092	.1988E-04	•1926Ē-01	.8469
332.6793	.0064	43.5957	13.6325	180.4291	8.9343	1.2584	1.1456	.9042	.2069E-04	.2037E-01	.8573
342.6793 352.6793	•0054 •0046	53.0389 64.1724	13.8511 14.0693	183.7959 187.9 0 58	9.1837 9.4338	1.2695	1.1585	.9007 .8995	.2159E-04	.2154E-01 .2280E-01	.8693
362.6793	.0039	77.2811	14.2878	193.0017	9.6800	1.2812	1.1782 1.2064	.9012	.2258E-04 .2370E-04	.2415E-01	.8827 .8973
372.6793	.0034	92.6664	14.5085	199.3606	9.9152	1.3035	1.2451	.9067	.2495E-04	.2561E-01	.9125
382.6793	.0030	110.7529	14.7330	207.3019	10.1325	1.3125	1.2963	.9170	.2636E-04	.2720E-01	.9279
392.6793	.0026	132.0662	14.9638	217.1927	10.3246	1.3187	1.3624	.9333	.2795E-04	.2892E-01	.9424
402.6793 412.6793	.0023	157.2789 187.2514	15.2039 15.4569	229.4573 244.5800	10.4857 10.6128	1.3215	1.4463 1.5509	.9570 .9894	.2971E-04 .3166E-04	.3080E-01	.9555 .9663
422.6793	-0018	223.0737	15.7270	263.0854	10.7072	1.3206	1.6790	1.0323	.3379E-04	-3508E-01	.9746
432.2732	.0017	264.1892	16.0069	284.4775	10.7728	1.3095	1.8260	1.0853	.3615E-04	.3739E-01	.9839
				S	/R=28.5000)					
_				_	- /D			7	4.1	1.	k I
T	٧	p	h ∕RT	а	c _p ∕R	γ	Υ _e	Z	μ	k	$^{\sf N}_{\sf Pr}$
T 115.9638	V 1.5635	p .0687	h /RT	a 118.4104	4.5016	γ 1.2967	1.2882	.9935	.7022E+05	.2303E-02	1.2969
115.9638 125.9638	1.5635 1.1676	.0687 .0999	9.1919 9.3563	118.4104 122.6838	4.5016 4.6848	1.2967	1.2882 1.2740	.9935 .9928	.7022E-05	.2303E-02 .3046E-02	1.2969 1.1148
115.9638 125.9638 135.9638	1.5635 1.1676 .8799	.0687 .0999 .1429	9.1919 9.3563 9.5267	118.4104 122.6838 126.7639	4.5016 4.6848 4.8673	1.2967 1.2832 1.2711	1.2882 1.2740 1.2610	.9935 .9928 .9921	.7022E-05 .7672E-05 .8314E-05	.2303E-02 .3046E-02 .3789E-02	1.2969 1.1148 1.0088
115.9638 125.9638 135.9638 145.9638	1.5635 1.1676 .8799 .6686	.0687 .0999 .1429 .2018	9.1919 9.3563 9.5267 9.7031	118.4104 122.6838 126.7639 130.6707	4.5016 4.6848 4.8673 5.0493	1.2967 1.2832 1.2711 1.2603	1.2882 1.2740 1.2610 1.2492	.9935 .9928	.7022E-05	.2303E-02 .3046E-02	1.2969 1.1148
115.9638 125.9638 135.9638 145.9638 155.9638	1.5635 1.1676 .8799	.0687 .0999 .1429	9.1919 9.3563 9.5267	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238	4.5016 4.6848 4.8673 5.0493 5.2308 5.4118	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420	1.2882 1.2740 1.2610 1.2492 1.2384 1.2284	.9935 .9928 .9921 .9912 .9903	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9570E-05	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02	1.2969 1.1148 1.0088 .9412 .8957 .8640
115.9638 125.9638 135.9638 145.9638 155.9638 165.9638 175.9638	1.5635 1.1676 .8799 .6686 .5114 .3937	.0687 .0999 .1429 .2018 .2816 .3868 .5317	9.1919 9.3563 9.5267 9.7031 9.8854 10.6733	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922	4.5016 4.6848 4.8673 5.0493 5.2308 5.4118 5.5924	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2342	1.2882 1.2740 1.2610 1.2492 1.2384 1.2284	.9935 .9928 .9921 .9912 .9903 .9892	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9570E-05 .1019E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02	1.2969 1.1148 1.0088 .9412 .8957 .8640
115.9638 125.9638 135.9638 145.9638 155.9638 155.9638 175.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3048	.0687 .0999 .1429 .2018 .2816 .3868 .5317	9.1919 9.3563 9.5267 9.7031 9.8854 10.6733 10.2669 10.4658	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324	4.5016 4.6848 4.8673 5.0493 5.2308 5.4118 5.5924 5.7728	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2342 1.2272	1.2862 1.2740 1.2610 1.2492 1.2384 1.2284 1.2191 1.2104	.9935 .9928 .9921 .9912 .9903 .9892 .9879	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9570E-05 .1019E-04 .1079E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02	1.2969 1.1148 1.0088 .9412 .8957 .8640 .8414
115.9638 125.9638 135.9638 145.9638 155.9638 165.9638 175.9638 185.9638	1.5635 1.1676, .8799 .6686 .5114 .3937 .3048 .2373	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209	9.1919 9.3563 9.5267 9.7031 9.8854 10.6733 10.2669 10.4658 10.6699	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502	4.5016 4.6848 4.8673 5.0493 5.2308 5.4118 5.5924 5.7728 5.9529	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2342 1.2272	1.2862 1.2740 1.2610 1.2492 1.2384 1.2284 1.2191 1.2104 1.2023	.9935 .9928 .9921 .9912 .9903 .9892 .9879 .9865	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9570E-05 .1019E-04 .1139E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .7528E-02	1.2969 1.1148 1.0088 .9412 .8957 .8640 .8414 .8252 .8137
115.9638 125.9638 135.9638 145.9638 155.9638 165.9638 175.9638 185.9638 195.9638	1.5635 1.1676, .8799 .6686 .5114 .3937 .3048 .2373 .1856	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.6699 10.8790	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498	4.5016 4.6848 4.8673 5.0493 5.2308 5.4118 5.55924 5.7728 5.9529 6.1330 6.3133	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2342 1.2272	1.2862 1.2740 1.2610 1.2492 1.2384 1.2284 1.2191 1.2104 1.2023 1.1946 1.1873	.9935 .9928 .9921 .9912 .9903 .9879 .9865 .9848 .9829	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9970E-06 .1019E-04 .1139E-04 .1139E-04 .1257E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .7528E-02 .8282E-02 .9039E-02	1.2969 1.1148 1.0088 .9412 .8957 .8640 .8414 .8252 .8137 .8055
115.9638 125.9638 135.9638 145.9638 155.9638 155.9638 175.9638 185.9638 205.9638 205.9638 225.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3048 .2373 .1856 .1458 .1150	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.6699 10.8790 11.0928 11.3111	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.1344 157.0065	4.5016 4.6848 4.8673 5.0493 5.2308 5.4118 5.5924 5.7728 5.9529 6.1330 6.3133 6.4939	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2342 1.2272 1.2210 1.2156 1.2109 1.2068	1.2882 1.2740 1.2610 1.2492 1.2384 1.2191 1.2104 1.2023 1.1946 1.1873 1.1803	.9935 .9928 .9921 .9912 .9903 .9892 .9879 .9865 .9848 .9829 .9808	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9570E-05 .1019E-04 .1139E-04 .1139E-04 .1257E-04 .1315E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .7528E-02 .8282E-02 .9039E-02 .9801E-02	1.2969 1.1148 1.0088 .9412 .8957 .8640 .8414 .8252 .8137 .8055 .7969
115.9638 125.9638 135.9638 145.9638 165.9638 165.9638 175.9638 175.9638 205.9638 215.9638 225.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3048 .2373 .1856 .1458 .1150	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.6699 10.8790 11.0928 11.3111 11.5334	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.1344 157.0065	4.5016 4.6848 4.8673 5.0493 5.2308 5.4118 5.5924 5.7728 5.9529 6.1330 6.3133 6.4939 6.6751	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2342 1.2272 1.2210 1.2156 1.2109 1.2068 1.2035	1.2882 1.2740 1.2610 1.2492 1.2384 1.2284 1.2104 1.2104 1.2023 1.1946 1.1873 1.1803 1.1737	.9935 .9928 .9921 .9912 .9903 .9892 .9879 .9865 .9848 .9829 .9808	.7022E-05 .7672E-05 .8314E-05 .89146E-05 .9970E-05 .1019E-04 .1139E-04 .1139E-04 .1257E-04 .1315E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .7528E-02 .8282E-02 .9039E-02 .9039E-02	1.2969 1.1148 1.0088 .9412 .8957 .8640 .8414 .8252 .8137 .8055 .7999 .7944
115.9638 125.9638 135.9638 145.9638 165.9638 165.9638 175.9638 185.9638 205.9638 225.9638 225.9638 225.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3048 .2373 .1856 .1458 .1150 .0911 .0725	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534	9.1919 9.3563 9.5267 9.7031 9.8854 10.2669 10.4658 10.6699 10.08790 11.0928 11.3111 11.5334 11.7995	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.7683 162.4220	4.5016 4.6848 4.8673 5.0493 5.2308 5.4118 5.5924 5.7728 6.1330 6.4939 6.6751 6.8572	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2342 1.2272 1.2210 1.2156 1.2068 1.2035 1.2009	1.2882 1.2740 1.2610 1.2492 1.2384 1.2284 1.2191 1.2104 1.2023 1.1945 1.1873 1.1873 1.1873 1.1674	.9935 .9928 .9921 .9912 .9903 .9892 .9865 .9848 .9829 .9808 .9784	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9970E-06 .1019E-04 .1079E-04 .1139E-04 .1257E-04 .1257E-04 .1429E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .8282E-02 .9039E-02 .9801E-02 .1057E-01 .1134E-01	1.2969 1.1148 1.0088 .9412 .8957 .8640 .8414 .8252 .8137 .7999 .7964 .7938
115.9638 125.9638 135.9638 145.9638 155.9638 165.9638 185.9638 195.9638 205.9638 215.9638 225.9638 225.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3048 .2373 .1856 .1458 .1150 .0911 .0725 .0579	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.9832	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.6699 11.3111 11.5334 11.7595 11.9889	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 157.0065 159.7683 162.4220 164.9730	4.5016 4.6848 4.8673 5.0493 5.4308 5.5118 5.5924 5.7728 6.1330 6.3133 6.6751 6.8572	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2342 1.2272 1.2270 1.2156 1.2109 1.2068 1.2009 1.1970	1.2882 1.2740 1.2610 1.2492 1.2384 1.2191 1.2104 1.2023 1.1946 1.2023 1.1946 1.1873 1.1873 1.1873 1.1674	.9935 .9928 .9921 .9912 .9903 .9892 .9879 .9865 .9848 .9829 .9808	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9570E-05 .1019E-04 .1139E-04 .1139E-04 .1257E-04 .1315E-04 .1429E-04 .1429E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .7528E-02 .8282E-02 .9039E-02 .9039E-02	1.2969 1.1148 1.0088 .9412 .8957 .8640 .8414 .8252 .8137 .8055 .7999 .7944
115.9638 125.9638 135.9638 145.9638 155.9638 165.9638 175.9638 185.9638 205.9638 225.9638 225.9638 235.9638 245.9638 255.9638 255.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3048 .2373 .1856 .1458 .1150 .0911 .0725 .0579 .0464	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.9832 6.4091 8.1944	9.1919 9.3563 9.5267 9.7031 10.2669 10.4658 10.66699 11.0928 11.3111 11.5334 11.7595 11.9889 12.2212	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.7844 157.0065 159.7683 162.4220 164.9730 167.4244 169.7868	4.5016 4.6848 4.8673 5.0493 5.4308 5.4118 5.5924 6.1330 6.4939 6.6751 7.0405 7.4129	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2342 1.2210 1.2156 1.2109 1.2068 1.2068 1.2009 1.1970 1.1977	1.2882 1.2740 1.2692 1.2492 1.2384 1.2104 1.2104 1.2023 1.1873 1.1873 1.1674 1.1614 1.1557 1.1504	.9935 .9928 .9921 .9912 .9903 .9892 .9865 .9848 .9829 .9848 .9829 .9756 .9756 .9756 .9691	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9970E-06 .1019E-04 .1079E-04 .1139E-04 .1257E-04 .1315E-04 .1315E-04 .1429E-04 .1486E-04 .1599E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .7528E-02 .9039E-02 .9801E-02 .1057E-01 .1134E-01 .1291E-01 .1291E-01	1.2969 1.1148 1.00812 .8957 .8640 .8414 .8252 .8137 .7999 .7964 .7943 .7943 .7943
115.9638 125.9638 135.9638 145.9638 165.9638 165.9638 175.9638 125.9638 205.9638 225.9638 225.9638 225.9638 225.9638 225.9638 245.9638 255.9638 265.9638 265.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3937 .1856 .1458 .1458 .1450 .0911 .0725 .0579 .0464 .0302	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.9832 6.4091 8.1944	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 11.0928 11.3111 11.5334 11.7595 11.9889 12.2212 12.4558	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.1344 157.0065 159.7683 162.4220 164.9730 167.4244 169.7868	4.5016 4.6848 4.8673 5.0493 5.4308 5.5118 5.5924 5.7728 6.1330 6.3133 6.6751 6.8572 7.0405 7.4129 7.6029	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2272 1.2272 1.22156 1.2156 1.2109 1.2035 1.2035 1.2099 1.1979 1.1983	1.2882 1.2740 1.2610 1.2492 1.2384 1.2191 1.2104 1.1873 1.1873 1.1803 1.1737 1.1674 1.1557 1.1504	.9935 .9928 .9921 .9912 .9912 .9892 .9879 .9865 .9848 .9786 .9756 .9756 .9612 .9654 .9654	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9570E-05 .1019E-04 .1079E-04 .1139E-04 .1257E-04 .1257E-04 .1429E-04 .1429E-04 .1542E-04 .1599E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .7528E-02 .9039E-02 .9039E-02 .1057E-01 .1134E-01 .1212E-01 .1212E-01 .1537E-01	1.2969 1.1148 1.0088 1.9412 .8957 .8640 .8414 .8252 .8137 .7999 .7944 .7944 .7943 .7957 .7967 .7967
115.9638 125.9638 135.9638 145.9638 165.9638 165.9638 175.9638 175.9638 205.9638 205.9638 225.9638 225.9638 225.9638 255.9638 255.9638 275.9638 275.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3048 .2373 .1856 .1458 .1150 .0911 .0725 .0579 .0464 .0302 .0245	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.9832 6.4091 8.1944 10.4163 13.1633	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.6699 11.3111 11.5334 11.7595 11.9889 12.2212 12.4558 12.6923 12.6923	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.1344 157.0065 159.7683 162.4220 164.9730 167.4244 169.7868 172.0736 174.3060	4.5016 4.6848 4.6873 5.0493 5.4118 5.5924 6.1330 6.4939 6.6751 6.6757 7.0405 7.4029 7.7063	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2342 1.2272 1.2210 1.2109 1.2009 1.2009 1.1990 1.1977 1.1983 1.1999	1.2882 1.2740 1.2610 1.2692 1.2384 1.2191 1.2104 1.2023 1.1946 1.1803 1.1737 1.1674 1.1557 1.1504 1.1456	.9935 .9928 .9921 .9912 .9903 .9892 .9865 .9848 .9829 .9808 .9784 .9756 .9756 .9654 .9654 .9652	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9570E-05 .1019E-04 .1139E-04 .1139E-04 .1257E-04 .1315E-04 .1429E-04 .1429E-04 .1542E-04 .1592E-04 .1592E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .7528E-02 .8282E-02 .9039E-02 .1057E-01 .1134E-01 .1212E-01 .1212E-01 .1212E-01 .1237E-01 .1453E-01	1.2969 1.1148 1.0088 .9412 .8957 .8414 .8252 .8137 .8055 .7964 .7948 .7943 .7943 .7943 .7943 .7943 .7943 .7943
115.9638 125.9638 135.9638 145.9638 155.9638 155.9638 155.9638 205.9638 225.9638 225.9638 225.9638 225.9638 245.9638 245.9638 255.9638 265.9638 265.9638 265.9638 265.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .1856 .1458 .1150 .0911 .0725 .0579 .0464 .0374 .0302 .0245 .0200	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.9832 6.4091 8.1944 10.4163 13.1633 16.5369	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.6699 11.3111 11.5334 11.7595 11.9889 12.2212 12.4558 12.6923 12.9301 13.1686	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.492 144.8324 148.0502 151.1498 154.1344 157.0065 159.7683 162.4220 164.9730 167.4244 169.7868 172.0736 174.3060	4.5016 4.6848 4.8673 5.0493 5.2308 5.4118 5.5924 6.1330 6.3133 6.6751 6.8572 7.0405 7.2256 7.429 7.6029 7.7963	1.2967 1.2832 1.2711 1.2603 1.2507 1.2342 1.2272 1.2210 1.2156 1.2109 1.2008 1.2008 1.2009 1.1990 1.1977 1.1983 1.1992	1.2882 1.2740 1.2610 1.2492 1.2384 1.2194 1.2104 1.2023 1.1946 1.1873 1.1873 1.1614 1.1557 1.1504 1.1456 1.1456 1.14383	.9935 .9928 .9921 .9903 .9892 .9879 .9865 .9849 .9786 .9756 .9756 .9654 .9654 .9657 .9567	.7022E-05 .7672E-05 .8314E-09 .8946E-05 .9570E-05 .1019E-04 .1079E-04 .1139E-04 .1257E-04 .1315E-04 .1429E-04 .1486E-04 .1542E-04 .1599E-04 .1656E-04 .1714E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .6027E-02 .6776E-02 .7528E-02 .8282E-02 .9039E-02 .9039E-01 .1134E-01 .1212E-01 .1272E-01 .1453E-01 .1453E-01 .1537E-01 .1622E-01	1.2969 1.1148 1.0088 1.9412 1.8957 1.8640 1.8414 1.8252 1.8035 1.7994 1.7944 1.7943 1.7957 1.7980 1.8047 1.8091
115.9638 125.9638 135.9638 145.9638 165.9638 165.9638 175.9638 175.9638 205.9638 205.9638 225.9638 225.9638 225.9638 255.9638 255.9638 275.9638 275.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .1856 .1458 .1150 .0911 .0725 .0579 .0464 .0302 .0245 .0200 .0163 .0111	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.9832 6.4091 8.1944 10.4163 13.1633 13.1633 13.1633 25.6348	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.6699 10.8790 11.0928 11.3111 11.5334 11.7595 11.9889 12.2212 12.4558 12.6923 12.9301 13.1686 13.4073 13.6458	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 151.1498 152.07683 162.4220 164.9730 167.4244 169.7868 172.0736 174.5060 176.5146 178.7428 181.0505	4.5016 4.6848 4.6873 5.0493 5.2308 5.4118 5.5924 6.1330 6.4939 6.6751 6.6751 6.6757 7.2256 7.4129 7.7063 7.9938 8.1958	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2342 1.2210 1.2156 1.2109 1.2109 1.1970 1.1977 1.1983 1.1999 1.2065 1.2065 1.2005 1.1977	1.2882 1.2740 1.2692 1.2284 1.2284 1.2191 1.2104 1.2023 1.1803 1.1737 1.1674 1.1557 1.1504 1.1456 1.1456 1.1456 1.1363 1.1363	.9935 .9928 .9921 .9912 .9903 .9892 .9865 .9848 .9829 .9808 .9726 .9726 .9654 .9756 .9654 .9654 .9652 .9567 .9567	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9970E-00 .1019E-04 .1139E-04 .1139E-04 .11315E-04 .1315E-04 .1315E-04 .1429E-04 .1542E-04 .1592E-04 .1714E-04 .1714E-04 .1714E-04 .1714E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .7528E-02 .8282E-02 .9039E-02 .9039E-02 .1057E-01 .1134E-01 .1212E-01 .1272E-01 .1272E-01 .1537E-01 .1622E-01 .1622E-01 .1710E-01 .1896E-01	1.2969 1.1148 1.0088 .9412 .8957 .8640 .8414 .8252 .8157 .8055 .7964 .7943 .7943 .7957 .8047 .8047 .8047
115.9638 125.9638 135.9638 145.9638 165.9638 165.9638 175.9638 205.9638 205.9638 225.9638 225.9638 225.9638 225.9638 255.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3048 .2373 .1856 .1458 .1450 .0725 .0579 .0464 .0374 .0374 .0302 .0245 .0200 .0163 .0134 .0092	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.9832 6.4091 8.1944 10.4163 13.1633 16.5369 20.6513 25.63499	9.1919 9.3563 9.5267 9.7031 9.8854 10.6733 10.2669 10.4658 11.3111 11.5334 11.7595 11.9889 12.2212 12.4558 12.6923 12.9301 13.1686 13.4073 13.6458 13.8836	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 157.0065 159.7683 162.4220 167.4244 169.7868 172.0736 174.3060 176.5146 178.7428 181.0505 183.5172	4.5016 4.6848 4.8673 5.0493 5.2308 5.5118 5.5924 6.1330 6.3133 6.6751 6.8572 7.0405 7.2256 7.7062 7.7063 8.1958 8.4030 8.6158	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2272 1.2210 1.2156 1.2109 1.2068 1.2035 1.2009 1.1979 1.1983 1.1999 1.1993 1.	1.2882 1.2740 1.2610 1.2492 1.2384 1.2191 1.2104 1.1873 1.1873 1.1873 1.1674 1.1557 1.1650 1.1415 1.1383 1.1363 1.1363 1.1361	.9935 .9928 .9921 .9912 .9903 .9892 .9879 .9865 .9829 .9808 .9756 .9756 .9756 .9651 .9654 .9550 .9567 .9520 .9419 .9370	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9570E-05 .1019E-04 .1079E-04 .1139E-04 .1257E-04 .1257E-04 .1315E-04 .1429E-04 .1429E-04 .1542E-04 .1542E-04 .1542E-04 .1773E-04 .1773E-04 .1832E-04 .1832E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .7528E-02 .9039E-02 .9039E-02 .1057E-01 .1134E-01 .1212E-01 .1212E-01 .1537E-01 .1537E-01 .1622E-01 .1710E-01 .1801E-01	1.2969 1.1148 1.0088 1.9412 1.8640 1.
115.9638 125.9638 135.9638 145.9638 165.9638 165.9638 175.9638 205.9638 205.9638 225.9638 225.9638 225.9638 225.9638 225.9638 255.9638 255.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3048 .2373 .1856 .1150 .0911 .0725 .0579 .0464 .0302 .0245 .0200 .0163 .0111 .0092	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2610 3.8534 4.9832 6.4091 8.1944 10.4163 11633 16.5369 20.6513 25.6348 31.6299 38.7950	9.1919 9.3563 9.5267 9.7031 9.8854 10.6733 10.2669 10.4658 10.4658 11.3111 11.5334 11.7595 11.9889 12.2212 12.4558 12.6923 12.9301 13.1686 13.4073 13.6458 13.8836 14.1206	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.1344 157.0065 159.7683 162.4220 164.9730 167.4244 169.7868 172.0736 174.3060 176.5146 178.7428 181.0505 183.5175	4.5016 4.6848 5.0493 5.2308 5.4118 5.5924 6.1330 6.4939 6.6751 6.8572 7.0405 7.7938 8.1958 8.4030 8.6158	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2272 1.2272 1.22156 1.2159 1.2063 1.2099 1.1990 1.1979 1.1979 1.1979 1.1983 1.2025 1	1.2882 1.2740 1.2610 1.2492 1.2384 1.2191 1.21023 1.1946 1.803 1.1803 1.1737 1.1674 1.1557 1.1674 1.1557 1.1633 1.1456 1.1415 1.1363 1.1361 1.1381	.9935 .9928 .9921 .9912 .9903 .9892 .9887 .9865 .9848 .9829 .9808 .9756 .9756 .9654	.7022E-05 .7672E-05 .8314E-05 .8976E-05 .9970E-05 .1019E-04 .1139E-04 .1139E-04 .1257E-04 .1315E-04 .1429E-04 .1429E-04 .1542E-04 .1599E-04 .1599E-04 .1599E-04 .1714E-04 .1713E-04 .193E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .7528E-02 .8282E-02 .9039E-02 .1057E-01 .1134E-01 .1212E-01 .1291E-01 .1271E-01 .1537E-01 .1537E-01 .1537E-01 .1622E-01 .1710E-01 .1801E-01 .1801E-01	1.2969 1.1148 1.0088 .9412 .8957 .8957 .80414 .8252 .8137 .8055 .7964 .7943 .7943 .7958 .7943 .7958 .8091 .8194 .8261
115.9638 125.9638 135.9638 145.9638 155.9638 165.9638 165.9638 205.9638 205.9638 225.9638 225.9638 225.9638 245.9638 245.9638 255.9638 255.9638 255.9638 255.9638 255.9638 255.9638 255.9638 255.9638 255.9638 255.9638 255.9638	1.5635 1.1676 .8798 .6798 .5114 .3937 .3048 .2373 .1856 .1150 .0911 .0725 .0579 .0464 .0374 .0302 .0245 .0200 .0163 .0111 .0092 .0077	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.9832 6.4091 8.1944 10.4163 13.1633 13.1633 16.5369 20.6513 25.6348 31.6299 38.7950 47.3072	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.6699 11.3111 11.5534 11.7595 11.7895 12.2212 12.4558 12.6923 12.9301 13.1686 13.4073 13.66458 13.8836 14.1206	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.0365 159.7683 162.4220 164.9730 167.4244 169.7868 172.0736 174.3060 176.5146 178.7428 181.0505 183.5172 186.2456	4.5016 4.6848 4.8673 5.0493 5.4118 5.5924 6.1330 6.4939 6.6751 7.2256 7.4129 7.7063 7.9938 8.1958 8.1958 8.8339 9.0568	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2212 1.2210 1.2156 1.2109 1.2068 1.2035 1.2009 1.1979 1.1977 1.1983 1.1992 1.1992 1.2063 1.	1.2882 1.2740 1.2692 1.2492 1.2284 1.2104 1.2104 1.2023 1.1873 1.1873 1.1803 1.1737 1.1674 1.1557 1.1674 1.1556 1.1415 1.1415 1.1415 1.1415 1.1415 1.1415 1.1416 1.	.9935 .9928 .9921 .9903 .9892 .9879 .9865 .9849 .9756 .9756 .9756 .9651 .9657 .9657 .9567 .9567 .9567 .9587 .9587 .9587 .9587 .9587	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9970E-05 .1019E-04 .1139E-04 .1139E-04 .1135E-04 .1257E-04 .1429E-04 .1429E-04 .1542E-04 .1592E-04 .1592E-04 .1592E-04 .1714E-04 .1957E-04 .2024E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .7528E-02 .7528E-02 .8282E-02 .9039E-02 .9039E-01 .1057E-01 .1212E-01 .1212E-01 .1453E-01 .1453E-01 .1537E-01 .1622E-01 .1710E-01 .1801E-01 .1801E-01 .1894E-01 .2098E-01 .2098E-01	1.2969 1.1148 1.0088 .9412 .8957 .8640 .8414 .8252 .8137 .8055 .7964 .7943 .7943 .7957 .8010 .8047 .8137 .8194 .8261
115.9638 125.9638 135.9638 145.9638 165.9638 165.9638 175.9638 205.9638 205.9638 225.9638 225.9638 225.9638 225.9638 225.9638 235.9638 245.9638 255.9638 255.9638 255.9638 255.9638 255.9638 255.9638 255.9638 255.9638 255.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3937 .1856 .1458 .1150 .0911 .0725 .0579 .0464 .0374 .0302 .0245 .0200 .0163 .0134 .0111 .0092 .0077	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.0918 8.1946 10.4163 13.1633 16.5369 20.6513 25.6348 31.65369 25.6348 31.6299 38.7950 47.3072 57.3671	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 11.0928 11.3111 11.5334 11.7595 11.9889 12.2212 12.4558 12.6923 12.9301 13.1686 13.4073 13.6458 13.8836 14.1206 14.3568	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.1344 157.0065 159.7683 162.4220 164.9730 167.4244 169.7868 172.0736 174.3060 176.5146 178.7428 181.0505 183.5175	4.5016 4.6848 5.0493 5.2308 5.4118 5.5924 6.1330 6.4939 6.6751 6.8572 7.0405 7.7938 8.1958 8.4030 8.6158	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2272 1.2272 1.22156 1.2159 1.2063 1.2099 1.1990 1.1979 1.1979 1.1979 1.1983 1.2025 1	1.2882 1.2740 1.2610 1.2492 1.2384 1.2191 1.21023 1.1946 1.803 1.1803 1.1737 1.1674 1.1557 1.1674 1.1557 1.1633 1.1456 1.1415 1.1363 1.1361 1.1381	.9935 .9928 .9912 .9912 .9903 .9892 .9887 .9865 .9829 .9829 .9829 .9726 .9756 .9756 .9756 .9756 .9757 .9324 .9327 .9327 .9328 .9257	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9970E-05 .1019E-04 .1139E-04 .1139E-04 .1135E-04 .1257E-04 .1429E-04 .1429E-04 .1542E-04 .1592E-04 .1592E-04 .1592E-04 .1714E-04 .1957E-04 .2024E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .7528E-02 .8282E-02 .9039E-02 .1057E-01 .1134E-01 .1212E-01 .1291E-01 .1271E-01 .1537E-01 .1537E-01 .1537E-01 .1622E-01 .1710E-01 .1801E-01 .1801E-01	1.2969 1.1148 1.0088 .9412 .8957 .8957 .80414 .8252 .8137 .8055 .7964 .7943 .7943 .7958 .7943 .7958 .8091 .8194 .8261
115.9638 125.9638 125.9638 145.9638 165.9638 165.9638 175.9638 205.9638 205.9638 225.9638 225.9638 225.9638 225.9638 225.9638 255.9638 275.9638 275.9638 305.9638 305.9638 305.9638 305.9638 305.9638 305.9638	1.5635 1.1676 .8798 .6798 .5114 .3937 .3048 .2373 .1856 .1150 .0911 .0725 .0579 .0464 .0374 .0302 .0245 .0200 .0163 .0111 .0092 .0077	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.9832 6.4091 8.1944 10.4163 13.1633 13.1633 16.5369 20.6513 25.6348 31.6299 38.7950 47.3072	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.6699 11.3111 11.5534 11.7595 11.7895 12.2212 12.4558 12.6923 12.9301 13.1686 13.4073 13.66458 13.8836 14.1206	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.1344 157.0065 159.7683 162.4220 164.9730 167.4244 169.7868 172.0736 174.3060 176.5146 178.765 181.0507 181.0507 181.0507 181.0507 181.0507 181.0507	4.5016 4.6848 4.6873 5.0493 5.2908 5.9118 5.9728 5.9529 6.1330 6.4751 6.8572 7.4029 7.4029 7.4029 7.7063 8.4058 8.	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2272 1.2210 1.2156 1.2109 1.2035 1.	1.2882 1.2740 1.2692 1.2384 1.2191 1.2104 1.2023 1.1946 1.1873 1.1737 1.1674 1.1557 1.1614 1.1550 1.1456 1.1455 1.1383 1.1383 1.1381 1.1520 1.1659 1.1659 1.1659 1.1659	.9935 .9928 .9921 .9903 .9892 .9879 .9865 .9829 .9808 .9756 .9756 .9756 .9654 .9756 .9657 .9657 .9567 .9567 .9520 .9419 .9324 .92857 .92857	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9570E-05 .1019E-04 .1079E-04 .1139E-04 .1257E-04 .1315E-04 .1312E-04 .1429E-04 .1486E-04 .1542E-04 .1542E-04 .1542E-04 .1773E-04 .1773E-04 .197E-04 .2024E-04 .2024E-04 .2024E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .7528E-02 .7528E-02 .9039E-02 .1057E-01 .1134E-01 .1212E-01 .1272E-01 .1453E-01 .1537E-01 .1622E-01 .1710E-01 .1801E-01 .1801E-01 .1994E-01 .29098E-01 .2207E-01 .2323E-01 .247E-01	1.2969 1.1148 1.0968 1.9412 .8957 .8640 .8414 .8252 .8037 .7964 .7943 .7957 .7968 .8047 .8194 .8194 .8194 .8262 .8538 .8638
115.9638 125.9638 135.9638 145.9638 165.9638 165.9638 175.9638 205.9638 205.9638 225.9638 225.9638 225.9638 225.9638 225.9638 235.9638 255.9638 255.9638 255.9638 255.9638 305.9638 325.9638 325.9638 325.9638 325.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3048 .2373 .1856 .1458 .1458 .0911 .0725 .0579 .0464 .0374 .0302 .0245 .0200 .0113 .0111 .0092 .0077 .0065 .0047 .0047	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9694 1.7169 2.2618 2.9610 3.8534 4.9832 6.4091 8.1946 10.4163 13.1633 16.5369 20.6513 25.6348 31.6299 38.7950 47.3071 69.2062 83.1191 99.4034	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 11.0928 11.3111 11.5334 11.7595 11.9889 12.2212 12.4558 12.6923 12.9301 13.1686 13.4673 13.46458 13.46458 13.46458 13.4658 13.4673 13.46458 13.4658 13.4658 13.4658	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.1344 157.0065 159.7683 162.4220 164.9730 167.4244 169.7868 172.0736 174.3060 176.5146 178.7428 181.0505 183.5172 183.5172 183.5172 189.3643 193.0297 197.4267 202.7727 202.7727	4.5016 4.6648 5.0493 5.2308 5.4118 5.5924 6.1330 6.4939 6.6751 6.8572 7.0405 7.4129 7.6029 7.7963 7.9938 8.4030 8.6158 8.8339 9.0568 9.2681 9.7349 9.9519	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2272 1.22156 1.2156 1.2008 1.2008 1.2008 1.2008 1.2009 1.1979 1.1983 1.1999 1.2025 1.2063 1.2172 1.2244 1.2244 1.2244 1.23278 1.2515	1.2882 1.2740 1.2610 1.2492 1.2384 1.2191 1.2104 1.2023 1.1946 1.1803 1.1737 1.1674 1.1557 1.1674 1.1557 1.1634 1.1456 1.1415 1.1363 1.1363 1.1361 1.1431 1.1520 1.1659 1.1659 1.2504	.9935 .9928 .9921 .9921 .9903 .9887 .98865 .98865 .9888 .9786 .9786 .96567 .96567 .96567 .9419 .9419 .9370 .9419 .9370 .9419 .9257 .9254 .9254 .9254	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9970E-05 .1019E-04 .1139E-04 .1139E-04 .1139E-04 .1257E-04 .135E-04 .1429E-04 .1429E-04 .1542E-04 .1542E-04 .1542E-04 .1714E-04 .1714E-04 .1715E-04 .2024E-04 .2024E-04 .2034E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .60776E-02 .7528E-02 .8282E-02 .9039E-02 .1057E-01 .1134E-01 .1212E-01 .1212E-01 .1537E-01 .1537E-01 .1537E-01 .1622E-01 .1710E-01 .1801E-01 .1801E-01 .1896E-01 .1994E-01 .2998E-01 .2098E-01 .2207E-01 .2447E-01 .25207E-01	1.2969 1.1148 1.0088 .9412 .8957 .8957 .80414 .8252 .8137 .8055 .7964 .7943 .7943 .7958 .7943 .7958 .8091 .8194 .8261 .8432 .8558 .8782
115.9638 125.9638 135.9638 145.9638 155.9638 155.9638 155.9638 205.9638 225.9638 225.9638 225.9638 225.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638	1.5635 1.1676 .8796 .6686 .5114 .3937 .1856 .1458 .1150 .0911 .0725 .0579 .0464 .0302 .0245 .0205 .0163 .0111 .0092 .0075 .0055 .0055	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.9832 6.4091 8.1944 10.4163 13.1633 16.5369 20.6513 25.6348 31.6299 38.7950 47.3072 57.3671 69.2062 83.1191 99.4081	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.66699 11.3111 11.5334 11.7595 11.7889 12.2212 12.4558 12.6023 12.4558 13.4073 13.1686 13.4073 13.6458 13.8658 14.3268 14.3268 14.3268 14.3273 14.8273 15.5454	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.0365 162.4220 167.4244 169.7868 172.0736 174.3060 176.5146 178.7428 181.0505 183.5172 186.2456 181.0505 183.5172 186.2456 181.0505 183.5172 186.2456 181.0505 183.5172 186.2456 183.0297 193.0297 193.0297 193.0297 193.0297 193.3643 193.0297 193	4.5016 4.6848 5.6848 5.0493 5.2308 5.4118 5.5924 6.1330 6.4939 6.6751 6.6751 6.6757 7.2256 7.4129 7.6029 7.7063 7.9938 8.1958 8.4158 8.4300 8.6158 9.2531 9.	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2242 1.2270 1.2156 1.2109 1.2068 1.2035 1.2035 1.2099 1.1977 1.1983 1.1999 1.1977 1.1983 1.1995 1.2063 1.2063 1.2064 1.2064 1.2064 1.2064 1.2064 1.2065 1.2065 1.2066 1.	1.2882 1.2740 1.2692 1.2492 1.2284 1.2104 1.2104 1.2023 1.1873 1.1873 1.1674 1.1557 1.1674 1.1550 1.1456 1.1451 1.1383 1.1363 1.1364 1.1383 1.1364 1.1383 1.1364 1.1383 1.	.9935 .9928 .9921 .9921 .9903 .9879 .9865 .9829 .9808 .9756 .9756 .9756 .9756 .9756 .9757 .9557 .9557 .9557 .9557 .9254 .9257 .9254 .9254	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9570E-05 .1019E-04 .1079E-04 .1139E-04 .1257E-04 .1315E-04 .1257E-04 .1429E-04 .1486E-04 .1542E-04 .1599E-04 .1714E-04 .1714E-04 .1773E-04 .1937E-04 .1957E-04 .2719E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .7528E-02 .7528E-02 .9039E-02 .9039E-01 .1057E-01 .1134E-01 .1212E-01 .1453E-01 .1453E-01 .1537E-01 .1622E-01 .1710E-01 .1801E-01 .1896E-01 .1994E-01 .2098E-01 .2098E-01 .2207E-01 .2323E-01 .2579E-01 .2579E-01	1.2969 1.1148 1.0088 1.9412 1.8957 1.8640 1.8144 1.8257 1.8055 1.7964 1.7943 1.
115.9638 125.9638 135.9638 145.9638 165.9638 165.9638 175.9638 205.9638 205.9638 225.9638 225.9638 225.9638 225.9638 225.9638 255.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638 275.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3048 .2373 .1856 .1458 .1459 .0725 .0579 .0464 .0374 .0374 .0374 .0374 .0374 .0374 .0374 .0374 .0374 .0375 .0407 .0407 .0092 .0077	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.9610 3.8534 4.9832 6.4091 8.1944 10.4163 13.1633 16.5369 20.6513 25.6348 27.3671 6299 38.7950 47.3671 69.2062 83.191 99.4034 118.4810 140.8609	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.6699 11.3928 11.3111 11.5334 11.7595 11.9889 12.6222 12.4558 12.6923 12.6923 12.6923 12.6923 13.1686 13.4073 13.6458 13.8836 14.3568 14.3568 14.3568 14.3568 14.3568 14.3568 15.3027 15.5454	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.492 144.8324 148.0502 151.1498 154.1344 157.0065 159.7683 162.4220 167.4244 169.7868 172.0736 174.3060 176.5146 178.7428 181.0505 183.5172 186.2456 189.3643 199.	4.5016 4.6848 5.673 5.0493 5.2928 5.9524 6.1330 6.4939 6.1333 6.4939 6.1333 6.4939 7.2256 7.4129 7.4029 7.7063 7.9938 8.4030 8.4958 8.4030 8.4030 9.9588 9.2631 9.7349 9.9519 10.1560	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2272 1.22106 1.2156 1.2035 1.2035 1.2035 1.2035 1.2035 1.2035 1.2035 1.2035 1.2035 1.2035 1.2035 1.2117 1.1983 1.1999 1.1977 1.1983 1.2117 1.2117 1.2244 1.22118 1.22117 1.2244 1.22118 1.2218	1.2882 1.2740 1.26192 1.2384 1.2191 1.2104 1.2023 1.1946 1.1873 1.1674 1.1557 1.1674 1.1550 1.1456 1.1415 1.1363 1.1363 1.1363 1.1381 1.1381 1.1383 1.1369 1.1381 1.1383 1.1369 1.1383 1.1383 1.1381 1.1383 1	.9935 .9928 .9921 .9921 .9903 .9892 .9887 .9865 .9829 .9808 .9756 .9756 .9654 .9756 .9657 .9520 .9419 .9370 .9419 .9370 .9419 .9324 .9254 .9254 .9254 .9254 .9366 .9366	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9570E-05 .1019E-04 .1079E-04 .1139E-04 .1139E-04 .1257E-04 .1315E-04 .1429E-04 .1429E-04 .1542E-04 .1542E-04 .1714E-04 .1714E-04 .1714E-04 .1714E-04 .1714E-04 .1957E-04 .2024E-04 .2024E-04 .2056E-04 .2056E-04 .2175E-04 .2175E-04 .2258E-04 .219E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .7528E-02 .8282E-02 .9039E-02 .1057E-01 .1134E-01 .1212E-01 .1271E-01 .1537E-01 .1537E-01 .1622E-01 .1710E-01 .1801E-01 .1896E-01 .2998E-01 .2207E-01 .2207E-01 .2579E-01 .2579E-01 .2579E-01 .2579E-01 .2579E-01 .2579E-01	1.2969 1.1148 1.09482 .8957 .8640 .8414 .8252 .81359 .79964 .79448 .79448 .79448 .7957 .80471 .81941 .8340 .8438 .86589 .8928
115.9638 125.9638 135.9638 145.9638 155.9638 155.9638 155.9638 205.9638 225.9638 225.9638 225.9638 225.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638 245.9638	1.5635 1.1676 .8796 .6686 .5114 .3937 .1856 .1458 .1150 .0911 .0725 .0579 .0464 .0302 .0245 .0205 .0163 .0111 .0092 .0075 .0055 .0055	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.9832 6.4091 8.1944 10.4163 13.1633 16.5369 20.6513 25.6348 31.6299 38.7950 47.3072 57.3671 69.2062 83.1191 99.4081	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.66699 11.3111 11.5334 11.7595 11.7889 12.2212 12.4558 12.6023 12.4558 13.4073 13.1686 13.4073 13.6458 13.8658 14.3268 14.3268 14.3268 14.3273 14.8273 15.5454	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.1344 157.0065 159.7683 162.4220 167.4244 169.7868 172.0736 174.3060 176.5146 178.7428 181.0507 186.2456 183.5172 186.2456 183.5172 186.2456 183.5172 186.2456 187.328 18	4.5016 4.6848 4.6873 5.0493 5.4118 5.5924 6.1330 6.4939 6.6751 7.2256 7.4129 7.6029 7.7938 8.1958 8.1958 8.8339 9.0568 9.2831 9.5102 9.7349 9.95102 9.7349 9.95100 10.3416 10.5035	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2272 1.2210 1.2210 1.2068 1.2035 1.2009 1.1979 1.1983 1.1990 1.1977 1.1983 1.2025 1.2063 1.2025 1.2063 1.2172 1.2214 1.22172 1.2218 1.22172 1.2218 1.2218 1.2703 1.2843 1.2870	1.2882 1.2740 1.2692 1.2492 1.2284 1.2104 1.2104 1.2104 1.1873 1.1873 1.1803 1.1737 1.1674 1.1557 1.1456 1.1456 1.1456 1.1456 1.1456 1.1456 1.1456 1.1456 1.1504 1.1520 1.1659 1.	.9935 .9928 .9921 .9923 .9892 .9879 .98865 .9849 .9829 .9865 .9756 .9756 .9654 .9657 .9657 .9567 .9567 .9567 .9520 .9324 .9285 .9285 .9286 .9286 .9286 .9286 .9386 .9386 .9386 .9386 .9386 .9486	.7022E-05 .7672E-05 .8314E-05 .8970E-05 .1019E-04 .1079E-04 .1139E-04 .1139E-04 .1257E-04 .1315E-04 .1315E-04 .1429E-04 .1486E-04 .1542E-04 .1542E-04 .1542E-04 .1542E-04 .1552E-04 .202E-04 .203E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .7528E-02 .7528E-02 .9039E-02 .9039E-01 .1134E-01 .1212E-01 .1212E-01 .1272E-01 .1453E-01 .1453E-01 .1710E-01 .1801E-01 .1994E-01 .2207E-01 .2207E-01 .2207E-01 .22772E-01 .2579E-01 .2579E-01 .25779E-01 .2876E-01 .2876E-01 .3042E-01 .3042E-01	1.2969 1.1148 1.0088 1.9412 1.8957 1.8640 1.81537 1.8045 1.7943 1.7958 1.7943 1.7958 1.8047 1.8159 1
115.9638 125.9638 125.9638 145.9638 165.9638 165.9638 175.9638 125.9638 205.9638 225.9638 225.9638 225.9638 225.9638 225.9638 225.9638 235.9638 255.9638 275.9638 275.9638 275.9638 375.9638 375.9638 375.9638 375.9638 375.9638 375.9638 375.9638 375.9638	1.5635 1.1676 .8799 .6686 .5114 .3937 .3048 .2373 .1856 .1458 .1150 .0911 .0725 .0579 .0464 .0374 .0302 .0245 .0200 .0163 .00134 .0112 .0077 .0055 .0055 .0047 .0055 .0035 .0035 .0035 .0035 .0036 .0035 .0036 .0035 .0036 .0037 .0036 .0037 .0036 .0037 .0036 .0037 .0036 .0037 .0037 .0035 .0036 .0037 .0036 .0037 .00	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.981 8.1944 10.4163 13.1633 16.5369 25.6348 31.65369 25.6348 31.65369 27.3671 69.2062 83.1191 99.4034 118.4810 140.8609 140.8609 140.8609 140.8609	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.4658 11.9928 11.3111 11.5334 11.7595 11.9889 12.2212 12.4558 12.6923 12.9301 13.1686 13.4073 13.46458 13.46458 13.4658	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.1344 157.0068 159.7683 162.4220 164.9730 167.4244 169.7868 174.3060 176.5146 174.3060 176.5172 181.0505 183.5172 183.5172 186.2456 189.3643 177.209.3109 217.3254 227.1438 239.1485 253.7827 271.5391	4.5016 4.6673 5.0493 5.2308 5.4118 5.5924 6.1330 6.4939 6.61330 6.4939 6.6751 6.8572 7.4256 7.4129 7.6029 7.7963 7.9938 8.4030 8.6158 8.8339 9.0568 8.8339 9.0568 9.7349 9.9519 10.1560 10.3416 10.5035 10.6385 10.6385 10.6385	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2272 1.22156 1.22109 1.2068 1.2009 1.1979 1.1983 1.1999 1.1983 1.2112 1.2244 1.2327 1.2244 1.2327 1.2244 1.2327 1.2782 1.2782 1.2782 1.2863	1.2882 1.2740 1.2610 1.2492 1.2384 1.2191 1.2104 1.2023 1.1946 1.1873 1.1674 1.1557 1.1674 1.1557 1.1504 1.1456 1.1451 1.1383 1.1361 1.1431 1.1659 1.1659 1.1659 1.2504 1.	.9935 .9928 .9921 .9921 .9903 .9892 .9887 .9865 .9888 .9786 .9756 .9654 .9654 .9654 .9654 .9654 .9654 .9654 .9654 .9654 .9654 .9656	.7022E-05 .7672E-05 .8314E-05 .8946E-05 .9970E-05 .1019E-04 .1079E-04 .1139E-04 .1139E-04 .1257E-04 .1315E-04 .1429E-04 .1429E-04 .1542E-04 .1542E-04 .1542E-04 .1714E-04 .1714E-04 .1715E-04 .2024E-04 .2024E-04 .2024E-04 .2056E-04 .2056E-04 .2056E-04 .2056E-04 .2175E-04 .2175E-04 .226E-04 .2585E-04 .2585E-04 .219E-04 .2685E-04 .2719E-04 .2719E-04 .2885E-04 .2719E-04 .2885E-04 .2719E-04 .2885E-04 .2719E-04 .2885E-04 .2719E-04 .2885E-04 .2719E-04 .2885E-04 .2719E-04 .2885E-04 .2719E-04 .2885E-04 .2719E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .6776E-02 .7528E-02 .8282E-02 .9039E-02 .1037E-01 .1134E-01 .1212E-01 .1237E-01 .1537E-01 .1537E-01 .1622E-01 .1710E-01 .1801E-01 .1801E-01 .1896E-01 .2098E-01 .2207E-01 .2207E-01 .2272E-01 .2579E-01 .3633E-01	1.2969 1.1148 1.0088 .9412 .8957 .8957 .8040 .8414 .8257 .8099 .7964 .79437 .7958 .8091 .8091 .8137 .8091 .81394 .8260 .8432 .8538 .8788 .8788 .8788
115.9638 125.9638 135.9638 145.9638 145.9638 165.9638 165.9638 125.9638 225.9638 225.9638 225.9638 225.9638 225.9638 225.9638 235.9638 245.9638 245.9638 325.9638 325.9638 325.9638 325.9638 325.9638 325.9638 325.9638 325.9638	1.5635 1.1676 .8796 .6686 .5114 .3937 .3048 .2373 .1856 .1150 .0911 .0725 .0579 .0464 .0374 .0302 .0163 .0114 .0092 .0065 .0055 .0055 .0040 .0035 .0036 .0036	.0687 .0999 .1429 .2018 .2816 .3888 .5317 .7209 .9697 1.2948 1.7169 2.2618 2.9610 3.8534 4.9832 6.4091 8.1944 10.4163 13.1633 16.5369 20.65513 25.6348 31.6299 38.7950 47.3072 57.3671 68.2062 83.1191 99.4034 110.8609 167.18450 198.2628	9.1919 9.3563 9.5267 9.7031 9.8854 10.0733 10.2669 10.4658 10.6699 11.3111 11.5334 11.7595 11.9889 12.2212 12.4558 12.6923 12.9301 13.1686 13.4073 13.6865 13.4073 13.6865 13.4073 13.6865 13.6923 14.3568 14.3568 14.3568 14.3568 14.3568 14.3568 14.3568 15.3027 15.5654 15.3027 15.5654 15.7043 16.0523 16.0523	118.4104 122.6838 126.7639 130.6707 134.4198 138.0238 141.4922 144.8324 148.0502 151.1498 154.1344 157.0065 159.7683 162.4220 167.4244 169.7868 172.0736 174.3060 176.5146 178.7428 181.0507 186.2456 183.5172 186.2456 183.5172 186.2456 183.5172 186.2456 187.328 18	4.5016 4.6848 4.6873 5.0493 5.4118 5.5924 6.1330 6.4939 6.6751 7.2256 7.4129 7.6029 7.7938 8.1958 8.1958 8.8339 9.0568 9.2831 9.5102 9.7349 9.95102 9.7349 9.95100 10.3416 10.5035	1.2967 1.2832 1.2711 1.2603 1.2507 1.2420 1.2272 1.2210 1.2210 1.2068 1.2035 1.2009 1.1979 1.1983 1.1990 1.1977 1.1983 1.2025 1.2063 1.2025 1.2063 1.2172 1.2214 1.22172 1.2218 1.22172 1.2218 1.2218 1.2703 1.2843 1.2870	1.2882 1.2740 1.2692 1.2492 1.2284 1.2104 1.2104 1.2104 1.1873 1.1873 1.1803 1.1737 1.1674 1.1557 1.1456 1.1456 1.1456 1.1456 1.1456 1.1456 1.1456 1.1456 1.1504 1.1520 1.1659 1.	.9935 .9928 .9921 .9923 .9892 .9879 .98865 .9849 .9829 .9865 .9756 .9756 .9654 .9657 .9657 .9567 .9567 .9567 .9520 .9324 .9285 .9285 .9286 .9286 .9286 .9286 .9386 .9386 .9386 .9386 .9386 .9486	.7022E-05 .7672E-05 .8314E-05 .8970E-05 .1019E-04 .1079E-04 .1139E-04 .1139E-04 .1257E-04 .1315E-04 .1315E-04 .1429E-04 .1486E-04 .1542E-04 .1542E-04 .1542E-04 .1542E-04 .1552E-04 .202E-04 .203E-04	.2303E-02 .3046E-02 .3789E-02 .4534E-02 .5280E-02 .6027E-02 .7528E-02 .7528E-02 .9039E-02 .9039E-01 .1134E-01 .1212E-01 .1212E-01 .1272E-01 .1453E-01 .1453E-01 .1710E-01 .1801E-01 .1994E-01 .2207E-01 .2207E-01 .2207E-01 .22772E-01 .2579E-01 .2579E-01 .25779E-01 .2876E-01 .2876E-01 .3042E-01 .3042E-01	1.2969 1.1148 1.0088 1.9412 1.8957 1.8640 1.81537 1.8045 1.7943 1.7958 1.7943 1.7958 1.8047 1.8159 1

TABLE IV.- Continued

					S /R=29.000	0					
T	٧	p	h∕RT	a	c _p ∕R	γ	Υe	Z	μ	k	N _{Pr}
110.2124	3.0551	.0335	9.1034	116.0100	4.3792	1.3024	1.2975	.9963	.6644E-05	.1873E-02	1.4672
120.2124	2.2668	.0492	9.2649	120.4311	4.5599	1.2877	1.2824	• 9959`	.7298E-05	.2615E-02	1.2021
130.2124	1.6989	.0711	9.4327	124.6490	4.7397	1.2747	1.2689	•9955	.7944E-05	.3357E-02	1.0594
140.2124	1.2845	.1013	9.6066	128.6874	4.9186	1.2629	1.2566	.9950	.8580E-05	.4100E-02	•9724
150.2124	.9781	•1424	9.7866	132.5651	5.0967	1.2524	1.2453	.9944	.9208E-05	.4843E-02	.9154
160.2124	.7498	.1980	9.9726	136.2975	5.2738	1.2428	1.2351	.9938	.9827E-05	.5587E-02	.8763
170.2124	.5783	.2725	10.1645	139.8965	5.4501	1.2342	1.2256	.9931	.1044E-04	.6332E-02	.8486
180.2124	.4484	.3718	10.3621	143.3720	5.6255	1.2264	1.2168	•9922	•1104E-04	•7079E-02	.8287
190.2124	•3494	.5031	10.5653	146.7318	5.8002	1.2194	1.2087	.9913	.1163E-04	.7827E-02	.8142
200.2124	.2735	.6757	10.7740	149.9820	5.9741	1.2130	1.2011	.9902	.1221E-04	.8576E-02	.8038
210.2124	.2151	.9013	10.9879	153.1277	6.1474	1.2073	1.1939	.9890	.1279E-04	•9328E-02	•7963
220.2124	•1698	1.1944	11.2070	156.1728	6.3201	1.2022	1.1871	.9876	.1336E-04	.1008E- 01	•7912
230.2124	.1345	1.5731	11.4309	159.1205	6.4924	1.1977	1.1808	.9860	.1392E-04	-1084E-01	•7878
240.2124	.1070	2.0600	11.6595	161.9733	6.6644	1.1938	1.1747	.9842	.1448E-04	•1160E-01	.7858
250.2124	.0854	2.6830	11.8923	164.7336	6.8364	1.1905	1.1689	.9821	.1504E-04	•1237E-01	. 7849
260.2124	.0684	3.4735	12.1292	167.4057	7.0084	1.1877	1.1635	.9799	.1559E-04	•1315E-01	.7850
270.2124	.0550	4.4750	12.3698	169.9914	7.1810	1.1855	1.1583	.9773	.1614E-04	.1393E-01	. 7859
280.2124	.0444	5.7361	12.6136	172.4960	7.3543	1.1840	1.1534	.9745	.1669E-04	•1472E-01	.7875
290.2124	•0359	7.3144	12.8602	174.9277	7.5288	1.1831	1.1490	.9714	.1724E-04	•1553E-01	•7896
300.2124	•0292	9.2776	13.1092	177.2981	7.7049	1.1829	1.1449	.9681	.1779E-04	.1634E-01	•7923
310.2124	.0238	11.7064	13.3601	179.6234	7.8831	1.1835	1.1414	.9646	.1835E-04	·1718E-01	• 7956
320.2124	.0195	14.6930	13.6124	181.9272	8.0638	1.1849	1.1387	.9609	•1892E-04	•1803E-01	•7993
330.2124	.0161	18.3427	13.8655	184.2426	8.2478	1.1872	1.1369	.9571	•1950E-04	.1891E- 0 1	.8035
340.2124	.0133	22.7747	14.1191	186.6147	8.4354	1.1903	1.1364	.9535	.2009E-04	•1982E-01	.8079
350.2124	.0110	28.1224	14.3726	189.1036	8.6271	1.1945	1.1377	.9501	.2071E-04	.2076E-01	.8131
360.2124	•0092	34.5346	14.6258	191.7870	8.8232	1.1996	1.1412	.9472	.2137E-04	.2174E-01	.8191
370.2124	.0077	42.1769	14.8785	194.7627	9.0237	1.2057	1.1476	.9451	.2207E-04	•2277E-01	.8263
380.2124	.0065	51.2343	15.1308	198.1508	9.2279	1.2126	1.1577	.9442	.2283E-04	.2385E-01	.8345
390.2124	.0056	61.9155	15.3829	202.0945	9.4347	1.2202	1.1724	.9450	•2367E-04	.2500E-01	.8440
400.2124	.0047	74.4769	15.6353	206.7629	9.6426	1.2283	1.1929	.9479	.2460E-04	.2622E-01	.8547
410.2124	.0041	89.1719	15.8890	212.3463	9.8482	1.2365	1.2201	.9537	.2563E-04	•2752E-01	.8665
420.2124	.0035	106.3449	16.1453	219.0651	10.0483	1.2443	1.2554	.9629	•2678E-04	.2891E-01	.8792
430.2124	.0031	126.3993	16.4058	227.1717	10.2386	1.2513	1.3004	.9764	.2806E-04	.3041E-01	.8925
440.2124	.0027	149.8306	16.6725	236.9599	10.4147	1.2569	1.3568	.9951	•2949E-04	.3203E-01	•9059
450.2124	.0024	177.2539	16.9482	248.7750	10.5723	1.2607	1.4266	1.0200	•3108E-04	.3 3 78E-01	•9190
460.2124	•0022	209.4370	17.2359	263.0224	10.7083	1.2623	1.5121	1.0523	.3284E-04	•3568E-01	.9311
470.2124	.0019	247.3376	17.5394	280.1612	10.8211	1.2617	1.6160	1.0934	•3476E-04	.3773E-01	.9418
480.2124	.0018	292.1360	17.8631	300.6642	10.9122	1.2590	1.7403	1.1450	.3686E-04	•3994E-01	.9515
486.4234	.0017	324.0450	18.0764	315.2709	10.9598	1.2565	1.8283	1.1830	•3835E-04	.4140E-01	• 9590

TABLE IV.- Continued

				s	/R=29.5000	5					
T	٧	р	h /RT	a	c _p /R	γ	Υ _e	Z	μ	k	N _{Pr}
105.2014	5.8658	.0167	9.0266	113.7961	4.2788	1.3087	1.3058	.9978	.6313E-05	.1500E-02	1.7006
115.2014	4.3268	.0248	9.1854	118.3446	4.4584	1.2931	1.2900	.9976	.6970E-05	.2242E-02	1.3097
125.2014	3.2263	.0361	9.3505	122.6776	4.6369	1.2791	1.2758	•9974	.7620E-05	.2983E-02	1.1190
135.2014	2.4279	.0518	9.5218	126.8227	4.8144	1.2666	1.2629	.9971	.8261E-05	.3725E-02	1.0087
145.2014	1.8421	.0733	9.6994	130.8014	4.9907	1.2554	1.2513	.9968	.8893E-05	.4467E-02	.9386
155.2014	1.4069	.1025	9.8832	134.6313	5.1659	1.2452	1.2407	.9964	.9515E-05	.5209E-02	.8914
165.2014	1.0815	.1419	10.0730	138.3265	5.3399	1.2359	1.2310	.9960	.1013E-04	.5952E-02	.8584
175.2014	.8360	.1945	10.2687	141.8986	5.5129	1.2275	1.2220	.9955	.1073E-04	.6696E-02	.8348
185.2014	.6495	.2645	10.4703	145.3571	5.6847	1.2198	1.2137	.9950	.1133E-04	.7440E-02	.8176
195.2014	.5070	.3569	10.6777	148.7098	5.8553	1.2129	1.2060	.9944	.1191E-04	.8186E-02	.8051
205.2014	.3975	.4782	10.8907	151.9630	6.0249	1.2065	1.1988	.9937	.1249E-04	.8932E-02	.7960
215.2014	.3129	•6366	11.1091	155.1221	6.1935	1.2008	1.1921	.9929	.1306E-04	.9681E-02	.7894
225.2014	.2473	.8422	11.3329	158.1914	6.3610	1.1955	1.1858	.9919	.1362E-04	.1043E-01	.7849
235.2014	.1961	1.1080	11.5618	161.1746	6.5276	1.1908	1.1799	.9909	.1418E-04	.1118E-01	.7819
245.2014	.1561	1.4496	11.7957	164.0746	6.6934	1.1866	1.1743	.9897	.1473E-04	.1194E-01	.7801
255.2014	.1246	1.8871	12.0343	166.8941	6.8585	1.1829	1.1690	.9883	.1527E-04	.1270E-01	.7792
265.2014	.0998	2.4440	12.2774	169.6362	7.0229	1.1796	1.1640	.9868	.1581E-04	.1346E-01	.7792
275.2014	.0803	3.1487	12.5247	172.3043	7.1869	1.1768	1.1592	.9851	.1635E-04	.1423E-01	.7798
285.2014	.0647	4.0397	12.7759	174.9006	7.3508	1.1746	1.1547	.9832	.1688E-04	.1501E-01	.7810
295.2014	.0524	5.1580	13.0307	177.4310	7.5148	1.1728	1.1506	.9812	1741E-04	.1579E-01	.7827
305.2014	.0425	6.5550	13.2886	179.9023	7.6791	1.1715	1.1467	.9789	.1794E-04	·1658E-01	• 7a 48
315.2014	.0346	8.2916	13.5494	182.3238	7.8441	1.1709	1.1433	.9765	.1848E-04	.1739E-01	.7874
325.2014	.0283	10.4391	13.8125	184.7092	8.0102	1.1708	1.1403	.9739	.1901E-04	.1821E-01	.7903
335.2014	.0232	13.0805	14.0775	187.0771	8.1778	1.1713	1.1379	.9712	.19568-04	.1904E-01	.7935
345.2014	.0191	16.3113	14.3439	189.4536	8.3474	1.1726	1.1364	.9685	.2011E-04	.1990E-01	.7971
355.2014	.0158	20.2404	14.6114	191.8736	8.5194	1.1746	1.1359	.9659	.2068E-04	.2078E-01	.8010
365.2014	.0131	24.9909	14.8794	194.3832	8.6943	1.1773	1.1367	.9635	.2125E-04	.2168E-01	.8051
375.2014	.0110	30.7007	15.1476	197.0422	8.8725	1.1809	1.1392	.9615	.2185E-04	.2262E-01	.8098
385.2014	.0092	37.5240	15.4159	199.9262	9.0540	1.1852	1.1440	.9601	.2249E-04	.2360E-01	.8153
395.2014	.0077	45.6322	15.6839	203.1280	9.2389	1.1904	1.1516	.9597	.2318E-04	.2462E-01	.8217
405.2014	.0066	55.2167	15.9519	206.7594	9.4267	1.1963	1.1627	.9605	.2392E-04	.2569E-01	.8290
415.2014	.0056	66.4932	16.2202	210.9519	9.6165	1.2027	1.1781	.9630	.2473E-04	.2682E-01	.8375
425.2014	.0048	79.7267	16.4891	215.8596	9.8069	1.2096	1.1987	.9677	.2562E-04	.2802E-01	.8470
435.2014	.0042	95.1697	16.7597	221.6517	9.9956	1.2165	1.2254	.9751	.26618-04	.2930E-01	.8576
445.2014	.0036	113.1696	17.0331	228.5260	10.1798	1.2233	1.2594	.9859	.2771E-04	.3067E-01	.8691
455.2014	.0032	134.1242	17.3109	236.7080	10.3564	1.2295	1.3020	1.0007	.2894E-04	.3213E-01	.8813
465.2014	.0028	158.5152	17.5951	246.4610	10.5216	1.2347	1.3545	1.0204	.3031E-04	.3370E-01	.8938
475.2014	.0025	186.9313	17.8880	258.0965	10.6721	1.2385	1.4189	1.0458	.3182E-04	.3540E-01	•9063
485.2014	.0022	220.0988	18.1925	271.9830	10.8048	1.2407	1.4970	1.0780	.3349E-04	.3723E-01	.9182
495.2014	.0020	258.9148	18.5122	288.5451	10.9180	1.2411	1.5914	1.1184	.3531E-04	.3920E-01	.9291
505.2014	.0018	304.4794	18.8511	308.2337	11.0118	1.2396	1.7041	1.1682	.3729E-04	.4133E-01	.9387
514.7215	.0017	355.3328	19.1958	330.2516	11.0858	1.2370	1.8296	1.2259	.3945E-04	.4350E-01	• 94 98

TABLE IV.- Continued

				9	/R=30.000	0					
T	٧	р	h∕RT	a	c _p /R	γ	Υ _e	Z	μ	k	N _{Pr}
100.7696	11.1023	.0085	8.9593	111.7523	4.1935	1.3152	1.3135	.9987	.6018E-05	·1171E-02	2.0356
110.7696	8.1448	.0127	9.1154	116.4151	4.3727	1.2987	1.2969	•9986	.6679E-05	·1912E-02	1.4429
120.7696	6.0448	.0186	9.2780	120.8494	4.5507	1.2840	1.2820	.9985	.7333E-05	.2653E-02	1.1881
130.7696	4.5303	.0269	9.4469	125.0858	4.7275	1.2708	1.2687	.9983	.7977E-05	.3394E-02	1.0496
140.7696	3.4249	.0382	9.6221	129.1488	4.9030	1.2589	1.2566	.9981	.8613E-05	.4136E-02	.9646
150.7696	2.6075	.0538	9.8036	133.0577	5.0773	1.2482	1.2456	.9979	•9239E -0 5	.4877E-02	.9086
160.7696	1.9984	.0748	9.9912	136.8287	5.2503	1.2384	1.2356	.9977	.9856E-05	•5619E-02	.8700
170.7696	1.5406	.1031	10.1849	140.4746	5.4221	1.2295	1.2264	•9974	.1046E-04	.6361E-02	.8426
180.7696	1.1940	.1408	10.3846	144.0063	5.5925	1.2214	1.2179	.9971	•1106E-04	.7104E-02	.8227
190.7696	.9298	.1907	10.5902	147.4328	5.7616	1.2140	1.2100	.9967	.1165E-04	.7847E-02	.8081
200.7696	.7273	.2564	10.8016	150.7616	5.9293	1.2072	1.2028	.9963	•1223E-04	.8591E-02	•7975
210.7696	.5713	.3426	11.0188	153.9991	6.0957	1.2010	1.1960	.9959	.1280E-04	.9336E-02	.7897
220.7696	.4505	.4548	11.2415	157.1507	6.2608	1.1953	1.1897	•9953	.1337E-04	.1008E-01	.7841
230.7696	.3565	.6004	11.4697	160.2207	6.4246	1.1901	1.1838	.9947	.1392E-04	.1083E-01	.7803
240.7696	.2831	.7883	11.7032	163.2131	6.5871	1.1853	1.1782	.9940	.1447E-04	.1158E-01	.7777
250.7696	.2255	1.0297	11.9419	166.1312	6.7484	1.1810	1.1729	.9932	.1501E-04	•1233E-01	.7762
260.7696	.1802	1.3387	12.1856	168.9779	6.9086	1.1770	1.1680	.9923	•1555E-04	.1308E-01	.7756
270.7696	.1445	1.7317	12.4341	171.7564	7.0677	1.1735	1.1633	.9913	.1608E-04	.1384E-01	.7756
280.7696	.1162	2.2310	12.6872	174.4686	7.2258	1.1704	1.1589	.9902	.1660E-04	.1460E-01	.7762
290.7696	.0937	2.8613	12.9446	177.1184	7.3830	-1.1677	1.1548	.9890	•1712E-04	.1536E-01	•7772
300.7696	.0758	3.6539	13.2060	179.7091	7.5396	1.1654	1.1509	.9876	.1764E-04	.1613E-01	.7787
310.7696	.0615	4.6464	13.4713	182.2455	7.6957	1.1635	1.1473	.9861	.1815E-04	.1691E-01	.7804
320.7696	.0500	5.8836	13.7400	184.7336	7.8515	1.1621	1.1440	. 9844	.1867E-04	.1769E-01	.7825
330.7696	.0408	7.4191	14.0118	187.1818	8.0074	1.1611	1.1410	•9827	.1918E-04	.1849E-01	.7849
340.7696	•0335	9.3157	14.2863	189.6014	8.1635	1.1605	1.1385	.9808	.1970E-04	.1929E-01	.7875
350.7696	.0275	11.6472	14.5632	192.0079	8.3204	1.1605	1.1365	.9789	-2022E-04	.2011E-01	.7903
360.7696	•0227	14.4989	14.8420	194.4219	8.4782	1.1611	1.1351	.9771	.2075E-04	.2095E-01	.7934
370.7696	.0188	17.9690	15.1223	196.8712	8.6374	1.1622	1.1346	.9753	.2129E-04	.218,0E-01	.7968
380.7696	.0156	22.1692	15.4037	199.3920	8.7985	1.1640	1.1352	.9736	.2184E-04	.2268E-01	.8004
390.7696	.0130	27.2257	15.6858	202.6308	8.9616	1.1664	1.1371	.9723	.2240E-04	.2358E-01	.8041
400.7696	.0109	33.2800	15.9684	204.8464	9.1273	1.1695	1.1408	.9716	.2298E-04	.2452E-01	.8083
410.7696	.0092	40.4899	16.2512	207.9116	9.2955	1.1733	1.1466	.9715	.2361E-04	.2549E-01	.8132
4 20. 7696	.0078	49.0314	16.5342	211.3142	9.4661	1.1777	1.1551	.9725	.2427E-04	.265GE-01	.8169
430.7696	.0066	59.1005	16.8175	215.1579	9.6389	1.1827	1.1669	.9748	.2499E-04	.2757E-01	.8254
440.7696	.0057	70.9171	17.1014	219.5631	9.8131	1.1882	1.1828	.9789	.2577E-04	.2868E-01	.8329
450.7696	.0049	84.7532	17.3863	224.6703	9.9876	1.1941	1.2033	9850	.2663E-04	.2987E-01	.8413
460.7696	.0042	100.8572	17.6732	230.6295	10.1604	1.2001	1.2295	.9939	.2758E-04	.3112E-01	.8508
470.7696	.0037	119.5767	17.9632	237.6181	10.3296	1.2060	1.2621	1.0059	.2864E-04	.3246E-01	.8611
480.7696	.0032	141.3016	18.2577	245.8374	10.4925	1.2116	1.3023	1.0218	.2981£-04	.33d9E-01	.8721
490.7696	.0029	166.4968	18.5584	255.5222	10.6462	1.2164	1.3513	1.0421	.3112E-04	.3542E-01	.8836
500.7696	.0025	195.7231	18.8678	266.9518	10.7879	1.2201	1.4107	1.0678	•3255E-04	.3706E-01	.8953
510.7696	.0023	229.6631	19.1883	280.4584	10.9148	1.2227	1.4822	1.0998	.3414E-04	.3882E-01	.9067
520.7696	.0021	269.1514	19.5232	296.4299	11.0251	1.2237	1.5680	1.1391	.3587E-04	.4072E-01	.9174
530.7696	.0019	315.2057	19.8763	315.2902	11.1182	1.2233	1.6701	1.1871	.3774E-04	.4276E-01	.9271
540.7696	.0017	369.0461	20.2520	337.4415	11.1958	1.2215	1.7901	1.2451	.3984E-04	•4495E-01	.9374
543.8728	.0017	387.5493	20.3738	345.0316	11.2172	1.2208	1.8310	1.2654	.4055E-04	.4565E-01	.9412

TABLE IV.- Continued

				s	/R=30.5000)					
Т	٧	р	h∕RT	а	c _p ∕R	γ	Υ _e	Z	μ	k	N _{Pr}
106.2207	15.4326	.0064	9.0443	114.3573	4.2878	1.3053	1.3043	.9992	.6379E-05	.15756-02	1.6410
116.2207	11.3941	•0095	9.2041	118.8966	4.4657	1.2898	1.2887	.9991	.7036E-05	.2315E-02	1.2820
126.2207	8.5021	.0138	9.3703	123.2260	4.6424	1.2759	1.2747	.9990	.7685E- 0 5	.3056E-02	1.1027
136.2207	6.4015	•0198	9.5428	127.3725	4.8178	1.2634	1.2621	.9989	.8324E-05	.3797E-02	.9978
146.2207	4.8589	.0280	9.7217	131.3579	4.9919	1.2521	1.2506	.9988	.8955E-05	.4538E-02	.9305
156.2207	3.7123	.0392	9.9068	135.1999	5.1646	1.2419	1.2402	.9987	.9576E-05	.5280E-02	.8849
166.2207	2.8540	.0542	10.0980	138.9128	5.3359	1.2325	1.2307	.9985	1019E-04	.6021E-02	.8529
176.2207	2.2063	•0743	10.2954	142.5089	5.5058	1.2240	1.2220	.9983	.1079E-04	.6763E-02	.8298
186.2207	1.7142	.1011	10.4988	145.9981	5.6743	1.2162	1.2139	.9981	.1138E-04	.7505E-02	-8130
196.2207	1.3379	.1364	10.7081	149.3890	5.8413	1.2090	1.2065	.9979	.1197E-04	.8247E-02	.8006
206.2207	1.0487	•1829	10.9233	152.6888	6.0068	1.2024	1.1996	.9976	.1254E-04	.8990E-02	.7916
216.2207	.8252	•2436	11.1443	155.9036	6.1709	1.1963	1.1931	.9973	.1311E-04	.9733E-02	.7850
226.2207	.6518	.3226	11.3709	159.0387	6-3334	1.1908	1.1871	.9970	.1366E ~ 04	.1048E-01	• 7802
236.2207	•5166	.4249	11.6031	162.0987	6.4944	1.1856	1.1815	•9966	.1421E-04	.1122E-01	.7770
246.2207	.4107	.5567	11.8407	165.0874	6.6539	1.1809	1.1763	.9961	•1476E-04	.1197E-01	.7749
256.2207	.3275	.7262	12.0836	168.0081	6.8119	1.1765	1.1713	.9956	.1529E-04	.1272E-01	.7737
266.2207	.2620	.9426	12.3316	170.8643	6.9685	1.1725	1.1667	.9950	.1582E-04	.1347E-01	.7733
276.2207	.2103	1.2176	12.5847	173.6589	7,1237	1.1689	1.1623	.9943	.1634E-04	.1422E-01	•7734
286.2207	.1692	1.5670	12.8426	176.3941	7.2775	1.1656	1.1581	.9936	.1686E-04	.1497E-01	.7740
296.2207	.1365	2.0083	13.1051	179.0730	7.4300	1.1626	1.1542	.9928	.1737E-04	.1573E-01	•7750
306.2207	.1105	2.5636	13.3721	181.6986	7.5813	1.1600	1.1506	.9919	.1787E- 04	.1649E-01	.7763
316.2207	.0896	3.2597	13.6432	184.2745	7.7315	1.1577	1.1472	.9909	.1838E-04	.1725E-01	•7779
326.2207	.0729	4.1290	13.9183	186.8050	7.8808	1.1558	1.1440	9898	.1888E-04	.1802E-01	.7797
336.2207	.0595	5.2100	14.1971	189.2956	8.0294	1.1542	1.1411	.9886	.1937E-04	.1880E-01	.7817
346.2207	.0487	6.5490	14.4792	191.7536	8.1773	1.1530	1.1386	.9874	.1987E-04	.1959E-01	.7839
356.2207	.0399	8.2006	14.7643	194.1886	8.3250	1.1522	1.1363	.9861	.2037E-04	.2038E-01	• 7862
366.2207	.0329	10.2290	15.0521	196.6132	8.4726	1.1518	1.1346	.9848	.2088E-04	.2118E-01	.7887
376.2207	.0271	12.7089	15.3423	199.0440	8.6204	1.1518	1.1334	.9835	.2138E-04	.2200E-01	•7914
386.2207	.0225	15.7268	15.6343	201.5032	8.7687	1.1523	1.1329	.9823	.2190E~04	.2284E-01	.7943
396.2207	.0187	19.3818	15.9280	204.0189	8.9179	1.1533	1.1332	.9813	. 2242E-04	.2369E-01	.7973
406.2207	.0156	23.7868	16.2229	206.6275	9.0684	1.1549	1.1346	.9806	.2295E-04	.2456E-01	8005
416.2207	.0131	29.0691	16.5187	209.3747	9.2203	1.1570	1.1374	.9802	.2349E-04	.2546E-01	.8037
426.2207	.0110	35.3712	16.8151	212.3171	9.3739	1.1596	1.1418	.9805	.2406E-04	.2639E-01	.8074
436.2207	.0093	42.8526	17.1121	215.5233	9.5293	1.1629	1.1483	.9816	.2466E-04	.2735E-01	.8117
446.2207	.0079	51.6903	17.4095	219.0749	9.6864	1.1667	1.1574	.9837	.2530E-04	.2836E-01	.8166
456.2207	.0068	62.0817	17.7075	223.0671	9.8450	1.1710	1.1695	.9872	.2600E~04	.2941E-01	.8222
466.2207	.0058	74.2470	18.0064	227.6086	10.0044	1.1757	1.1853	.9924	.2675E-04	.3051E-01	.8287
476.2207	.0050	88.4596	18.3065	232.8266	10.1639	1.1808	1.2054	.9996	.2757E-04	.3167E-01	.8361
486.2207	.0044	104.9596	18.6089	238.8524	10.3219	1.1861	1.2304	1.0094	.2848E-04	.3289E-01	.8443
496.2207	.0038	124.0883	18.9145	245.8437	10.4767	1.1913	1.2612	1.0223	.2948E-04	.3419E-01	.8534
506.2207	.0034	146.2208	19.2245	253.9774	10.6265	1.1963	1.2987	1.0386	.3060E-04	.3558E-01	.8632
516.2207	.0030	171.7977	19.5406	263.4598	10.7687	1.2007	1.3439	1.0591	.3182E-04	.3706E-01	.8736
526.2207	•0026	201.3429	19.8648	274.5358	10.9011	1.2045	1.3980	1.0845	.3318E-04	.3864E-01	.6843
536.2207	.0024	235.4855	20.1994	287.4987	11.0213	1.2073	1.4627	1.1155	.3467E~04	.4034E-01	.8950
546.2207	.0021	274.9860	20.5476	302.6945	11.1274	1.2089	1.5398	1.1532	.3630E~04	.4215E-01	.9053
556.2207	.0019	320.7649	20.9125	320.5128	11.2183	1.2093	1.6311	1.1986	.3807E-04	.4410E-01	.9148
566.2207	.0018	373.9253	21.2982	341.3479	11.2945	1.2086	1.7385	1.2530	.3998E-04	.4618E-01	.9238
573.9314	.0017	420.7613	21.6125	359.6787	11.3447	1.2073	1.8327	1.3020	.4165E-04	.4788E-01	.9324

TABLE IV. - Continued

			•	s	/R=31.000	0					
T	V	р	h∕RT	a	c _p /R	γ	Υ _e	Z	μ	k	N _{Pr}
122.8990	15.4320	.0074	9.3149	121.8351	4.5811	1.2800	1.2792	•9994	.7470E-05	.2810E-02	1.1506
132.8990	11.5840	.0107	9.4855	126.0439	4.7565	1.2670	1.2662	.9994	.8113E-05	.3550E-02	1.0267
142.8990	8.7703	.3152	9.6624	130.0857	4.9305	1.2553	1.2544	.9993	.8746E-05	.4291E-02	.9493
152.8990	6.6853	.0213	9.8456	133.9793	5.1032	1.2447	1.2437	.9992	.9370E-05	.5032E-02	.8977
162.8990	5.1291	.0296	10.0350	137.7404	5.2744	1.2350	1.2339	.9991	.9984E-05	.5773E-02	.8617
172.8990	3.9576	.0407	10.2306	141.3820	5.4442	1.2262	1.2250	.9990	.1059E-04	.6514E-02	.8360
182.8990	3.0695	.0555	10.4322	144.9149	5.6124	1.2181	1.2167	.9989	.1118E-04	.7256E-02	.8173
192.8990	2.3919	.0751	10.6399	148.3483	5.7791	1.2106	1.2091	.9988	.1177E-04	.7997E-02	.8036
202.8990	1.8720	.1009	10.8535	151.6900	5.9442	1.2038	1.2021	.9986	.1235E-04	.8739E-02	.7935
212.8990	1.4710	.1347	11.0730	154.9469	6.1078	1.1975	1.1956	.9984	.1292E-04	.9481E-02	.7860
222.8990	1.1602	.1788	11.2983	158.1246	6.2697	1.1916	1.1895	.9982	.1348E-04	.1022E-01	.7807
232.899u	.9182	.2360	11.5292	161.2282	6.4300	1.1862	1.1838	.9980	-1403E-04	.1097E-01	.7769
242.8990	.7291	.3099	11.7657	164.2621	6.5886	1.1812	1.1785	.9977	.1457E-04	.1171E-01	.7744
252.8990	.5808	.4049	12.0077	167.2301	6.7456	1.1766	1.1736	.9974	.1511E-04	.1246E-01	.7728
262.8990	.4639	.5268	12.2551	170.1356	6.9009	1.1723	1.1689	.9971	.1563E-04	.1320E-01	.7721
272.8990	.3718	.6821	12.5077	172.9819	7.0546	1.1684	1.1645	.9967	.1615E-04	.1395E-01	.7719
282.8990	.2987	.8798	12.7655	175.7715	7.2066	1.1647	1.1604	.9963	.1667E-04	.1470E-01	.7722
292.8990	.2406	1.1301	13.0282	178.5073	7.3569	1.1614	1.1565	.9958	.1718E-04	.1545E-01	.7729
302.8990	.1943	1.4462	13.2957	181.1919	7.5057	1.1584	1.1528	.9952	.1768E-04	.1620E-01	.7740
312.8990	.1574	1.8437	13.5678	183.8280	7.6530	1.1556	1.1494	.9946	.1818E-04	.1695E-01	.7753
322.8990	.1278	2.3419	13.8444	186.4187	7.7987	1.1531	1.1462	.9940	.1867E-04	.1771E-01	.7767
332.8990	.1040	2.9642	14.1253	188.9672	7.9431	1.1509	1.1432	.9932	.1916E-04	.1847E-01	.7784
342.8990	.0849	3.7386	14.4102	191.4779	8.0862	1.1490	1.1404	.9925	.1965E-04	.1924E-01	.7802
352.8990	.0694	4.6989	14.6988	193.9557	8.2281	1.1474	1.1379	.9917	.2013E-04	.2001E-01	.7821
362.8990	.0570	5.8851	14.9910	196.4073	8.3691	1.1461	1.1357	.9908	.2061E-04	.2079E-01	.7841
372.8990	.0469	7.3450	15.2863	198.8408	8.5091	1.1451	1.1338	.9899	.2110E-04	.2157E-01	.7862
382.8990	.0387	9.1347	15.5846	201.2673	8.6486	1.1445	1.1322	.9891	.2158E-04	.2237E-01	.7884
392.8990	.0320	11.3196	15.8855	203.7006	8.7877	1.1442	1.1312	.9883	.2207E-04	.2317E-01	.7908
402.8990	.0265	13.9761	16.1887	206.1587	8.9266	1.1443	1.1307	.9875	.2256E-04	.2399E-01	.7932
412.8990	.0221	17.1919	16.4938	208.6647	9.0656	1.1448	1.1310	.9870	.2306E-04	.2482E-01	.7957
422.8990	.0185	21.0673	16.8005	211.2477	9.2051	1.1457	1.1321	.9867	.2357E-04	.2567E-01	.7984
432.8990	.0155	25.7162	17.1085	213.9443	9.3452	1.1471	1.1343	.9867	.2409E-04	.2655E-01	.8011
442.8990	.0130	31.2670	17.4175	216.7996	9.4861	1.1490	1.1378	.9873	.2462E-04	.27446-01	.8039
452.8990	.0110	37.8635	17.7274	219.8681	9.6281	1.1514	1.1430	.9885	.2517E-04	.2837E-01	.8071
462.8990	.0094	45.6657	18.0380	223.2153	9.7713	1.1542	1.1502	.9906	.2575E-04	.2932E-01	.8107
472.8990	.0080	54.8519	18.3493	226.9173	9.9155	1.1576	1.1599	•9937	.2637E-04	.3032E-01	.8149
482.8990	.0068	65.6197	18.6614	231.0619	10.0605	1.1613	1.1723	.9983	.2704E-04	•3135E-01	.8197
492.8990	.0059	78.2099	18.9746	235.7516	10.2059	1.1655	1.1882	1.0045	.2777E-04	.3244E-01	.8253
502.8990	.0051	92.8354	19.2895	241.0920	10.3508	1.1699	1.2080	1.0128	.2856E-04	.3358E-01	.8316
512.8990	.0045	109.7886	19.6068	247.2085	10.4942	1.1745	1.2323	1.0235	.2943E-04	.3478E-01	.8388
522.8990	.0039	129.3849	19.9273	254.2385	10.6348	1.1792	1.2617	1.0371	.3039E-04	.3606E-01	.8467
532.8990	.0034	151.9860	20.2522	262.3384	10.7708	1.1837	1.2971	1.0540	.3145E-04	.3741E-01	.8554
542.8990	.0031	178.0113	20.5832	271.6898	10.9005	1.1878	1.3392	1.0747	.3261E-04	.3884E-01	.8646
552.8990	.0027	207.9527	20.9219	282.5083	11.0219	1.1914	1.3892	1.0999	.3390E-04	.4037E-01	.8742
562.8990	.0024	242.3929	21.2705	295.0521	11.1329	1.1943	1.4484	1.1303	.3531E-04	.4201E-01	.8840
572.8990	.0022	282.0281	21.6317	309.6287	11.2318	1.1963	1.5184	1.1666	.3684E-04	.4375E-01	.8935
582.8990	.0020	327.6934	22.0085	326.5905	11.3174	1.1973	1.6009	1.2099	.3851E-04	.4562E-01	.9026
588.8889	.0019	358.3392	22.2431	338.6472	11.3622	1.1974	1.6570	1.2396	.3957E-04•	.4679E-01	.9077

TABLE IV. - Continued

				- :	S /R=31.5000)					
T	V	p	h /RT	a	c _p /R	γ	Υ _e	Z	μ	k	$^{N}_{Pr}$
140.5155	15.4380	.0085	9.6201	129.1568	4.8870	1.2577	1.2572	.9996	.8596E-05	.4114E-02	.9646
150.5155	11.7488	.0119	9.8019	133.0876	5.0597	1.2468	1.2462	.9995	.9222E-05	.4855t-02	.9079
160.5155	9.0018	.0166	9.9900	136.8829	5.2309	1.2369	1.2363	.9995	.9839E-05	.>596E-02	.8688
170.5155	6.9360	.0229	10.1842	140.5566	5.4007	1.2279	1.2271	• 9994	.1045E-04	.6337E-02	.8410
180.5155	5.3729	.0313	10.3846	144.1199	5.5688	1.2196	1.2188	.9994	.1104E-04	.7078E-02	.8208
190.5155	4.1820	.0424	10.5910	147.5825	5.7354	1.2119	1.2110	.9993	•1163E-04	.7819E-02	.8060
200.5155	3.2694	.0571	10.8034	150.9528	5.9004	1.2049	1.2039	.9992	.1221E-04	.8560E-02	.7951
210.5155	2.5663	.0764	11.0218	154.2378	6.0638	1.1984	1.1973	.9991	.1278E-04	.9302E-02	.7871
220.5155	2.0221	.1016	11.2459	157.4437	6.2255	1.1924	1.1912	.9990	.1334E-04	.1004E-01	.7813
230.5155	1.5989	.1343	11.4759	160.5759	6.3854	1.1868	1.1854	.9988	.1389E-04	.1079E-01	.7771
240.5155	1.2684	.1766	11.7115	163.6390	6.5436	1.1817	1.1801	.9987	•1444E-04	.1153E-01	.7743
250.5155	1.0094	.2310	11.9527	166.6373	6.7001	1.1769	1.1751	.9985	.1497E-04	•1227E-01	• 7724
260.5155	.8055	.3010	12.1994	169.5742	6.8548	1.1724	1.1704	.9983	.1550E-04	.1301E-01	.7714
270.5155	-6448	.3904	12.4515	172.4533	7.0076	1.1683	1.1660	.9980	.1602E-04	.1376E-01	.7711
280.5155	.5178	.5040	12.7089	175.2775	7.1587	1.1645	1.1619	.9978	•1654E-04	.1450E-01	•7712
290.5155 300.5155	•4166	.6486 .8312	12.9714 13.2390	178.0494 180.7717	7.3079 7.4554	1.1609	1.1580 1.1543	.9975 .9972	.1705E-04 .1755E-04	.1525E-01	.7718
310.5155	.3361 .2719	1.0615	13.5115	183.4469	7.6010	1.1576	1.1509	.9972	.1804E-04	.1600E-01	.7726 .7737
320.5155	•2204	1.3508	13.7887	186.0775	7.7448	1.1518	1.1476	.9964			
330.5155	.1792	1.7130	14.0705	188.6662	7.8869	1.1492	1.1446	.9960	.1853E-04 .1902E-04	.1749E-01 .1825E-01	.7750 .7765
340.5155	.1460	2.1651	14.3568	191.2159	8.0273	1.1469	1.1418	.9955	•1950E-04	.1900E-01	.7781
350.5155	.1192	2.7276	14.6473	193.7299	8.1661	1.1448	1.1391	9950	.1997E-04	.1976E-01	.7797
360.5155	.0976	3.4249	14.9419	196.2121	8.3032	1.1430	1,1367	9945	.2045E-04	.2052E-01	.7815
370.5155	.0801	4.2867	15.2402	198.6673	8.4389	1.1414	1.1345	.9939	.2092E-04	.2129E-01	.7833
380.5155	.0659	5.3480	15.5422	201.1013	8.5732	1.1401	1.1326	.9933	.2139E-04	.2206E-01	.7851
390.5155	.0544	6.6506	15.8475	203.5218	8.7063	1.1390	1.1369	9928	.2186E-04	.2284E-01	.7870
400.5155	.0449	8.2434	16.1558	205.9380	8.8383	1.1382	1.1297	9922	.2232E-04	.2363E-01	.7889
410.5155	.0373	10.1842	16.4670	208.3620	8.9694	1.1378	1.1288	.9918	.2280E-04	.2442E-01	• 7909
420.5155	.0310	12.5398	16.7806	210.8090	9.0998	1.1376	1.1284	.9914	.2327E-04	.2523t-01	.7929
430.5155	.0259	15.3877	17.0964	213.2980	9.2297	1.1378	1.1286	.9912	.2375E-04	.2605E-01	.7950
440.5155	.0216	18.8166	17.4141	215.8532	9.3593	1.1383	1.1295	.9912	.2424E-04	.2688E-01	.7972
450.5155	.0182	22.9280	17.7335	218.5041	9.4888	1.1392	1.1314	.9916	.2473E-04	.2773E-01	.7994
460.5155	.0153	27.8363	18.0541	221.2875	9.6185	1.1405	1.1343	.9923	.2523E-04	.2860E-01	.8017
470.5155	.0129	33.6706	18.3759	224.2475	9.7486	1.1422	1.1385	.9937	.2575E-04	.2949E-01	.8040
480.5155	.0110	40.5747	18.6987	227.4369	9.8791	1.1443	1.1444	.9957	.2628E-04	.3041E-01	.8066
490.5155	.0094	48.7091	19.0224	230.9176	10.0102	1.1469	1.1522	.9987	.2685E-04	.3137E-01	.8096
500.5155	.0080	58.2513	19.3469	234.7609	10.1416	1.1498	1.1623	1.0028	.2745E-04	.3235E-01	.8131
510.5155	.0069	69.3983	19.6726	239.6478	10.2733	1.1532	1.1751	1.0083	.2810E-04	.3338E-01	.6171
520.5155	.0060	82.3919	19.9995	243.8726	10.4049	1.1568	1.1911	1.0155	.2880E-04	.3445E-01	.8218
530.5155	.0052	97.4367	20.3283	249.3285	10.5356	1.1608	1.2106	1.0246	.2957E-04	.3558E-01	.8271
540.5155	.0045	114.8215	20.6597	255.5284	10.6645	1.1649	1.2342	1.0361	.3040E-04	.3676E-01	.8332
550.5155	.0040	134.8524	20.9943	262.5942	10.7908	1.1690	1.2624	1.0503	.3132E-04	.3800E-01	.8400
560.5155	.0035	157.8768	21.3335	270.6637	10.9129	1.1731	1.2959	1.0676	.3233E-04	.3932E-01	.8475
570.5155	.0031	184.2923	21.6784	279.8964	11.0295	1.1769	1.3354	1.0885	.3343E-04	.4072E-01	.8556
580.5155	0028	214.5592	22.0308	290.4809	11.1388	1.1804	1.3818	1.1135	.3465E-04	.4220E-01	.8641
588.8889	•0026	243.2543	22.3330	300.5470	11.2235	1.1829	1.4268	1.1380	.3576E-04	.4351E-01	.8713

TABLE IV.- Continued

					s /R=32.000	0					
T	V	p	h ∕RT	а	c R	γ	γ _e	Z	μ	k	N_{Pr}
159.0088	15.4425	.0096	9.9617	136.3356	5.2036	1.2381	1.2378	.9997	.9746£-05	.5484E-02	.8737
169.0088	11.8921	.0132	10.1550	140.0296	5.3733	1.2290	1.2285	.9997	.1035E-04	.6224E-02	.8444
179.0088	9.2029	.0181	10.3546	143.6120	5.5414	1.2205	1.2201	9996	.1095E-04	.6965E-02	.8233
189.0088	7.1575	.0246	10.5602	147.0930	5.7080	1.2128	1.2123	.9996	.1154E-04	.7706E-02	.8077
199.0088	5.5918	.0332	10.7718	150.4811	5.8729	1.2056	1.2051	.9995	.1212E-04	.8447E-02	.7963
209.0088	4.3864	.0444	10.9894	153.7836	6.0362	1.1991	1.1984	.9995	.1269E-04	.9188E-02	.7878
219.0088	3.4540	.0591	11.2129	157.0069	6.1977	1.1929	1.1922	.9994	.1326E-04	.9929E-02	.7817
229.0088	2.7295	.0782	11.4422	160.1566	6.3575	1.1873	1.1865	.9993	.1381E-04	.1067E-01	•7773
239.0088	2.1641	.1029	11.6772	163.2376	6.5155	1.1820	1.1811	.9992	.1436E-04	.1141E-01	.7742
249.0088	1.7212	.1348	11.9179	166.2542	6.6717	1.1771	1.1761	.9991	.1489E-04	.1215E-01	•7723
.259.0088	1.3727	.1757	12.1641	169.2103	6.8260	1.1726	1.1714	.9990	.1542E-04	.1290E-01	.7711
269.0088	1.0981	.2281	12.4158	172.1093	6.9785	1.1683	1.1670	.9988	.1594E-04	.1364E-01	.7706
279.0088	.8812	.2948	12.6729	174.9544	7.1290	1.1643	1.1628	.9987	.1646E-04	.1438E-01	.7706
289.0088	.7087	.3797	12.9353	177.7483	7.2776	1.1607	1.1589	.9985	.1696E-04	.1513E-01	.7711
299.0088	.5714	.4871	13.2028	180.4936	7.4243	1.1572	1.1553	.9983	.1746E-04	.1587E-01	.7718
309.0088	.4618	.6226	13.4754	183.1929	7.5690	1.1540	1.1518	.9981	.1796E-04	.1662E-01	.7729
319.0088	.3742	.7932	13.7529	185.8486	7.7118	1.1510	1.1486	.9979	.1845E-04	.1736E-01	.7741
329.0088	.3039	1.0071	14.0353	188.4628	7.8526	1.1483	1.1455	•9976	.1893E-04	.1811E-01	.7754
339.0088	.2473	1.2745	14.3223	191.0381	7.9914	1.1457	1.1426	.9973	.1941E-04	.1886E-01	.7769
349.0088	.2018	1.6078	14.6138	193.5770	8.1283	1.1434	1.1399	.9970	.1988E-04	.1961E-01	.7784
359.0088	.1650	2.0220	14.9097	196.0823	8.2633	1.1412	1.1374	.9957	.2035E-04	.2036E-01	.7800
369.0088	.1352	2.5351	15.2099	198.5572	8.3965	1.1393	1.1351	.9963	.2081E-04	.2112E-01	.7816
379.C088	.1111	3.1688	15.5140	201.0053	8.5278	1.1376	1.1330	.9960	.2127E-04	.2168E-01	.7832
389.0088	.0914	3.9490	15.8219	203.4312	8.6574	1.1361	1.1311	.9956	.2173E-04	.2264E-01	.7849
399.0088	.0755	4.9067	16.1335	205.8402	8.7852	1.1348	1.1294	.9952	.2218E-04	.2341E-01	.7865
409.0088	.0624	6.0783	16.4484	208.2392	8.9116	1.1337	1.1280	.9949	.2264E-04	.2418E-01	.7881
419.0088	.0518	7.5070	16.7664	210.6364	9.0364	1.1328	1.1269	.9946	.2309E-04	.2496E-01	.7898
429.0088	.0430	9.2431	17.0874	213.0424	9.1600	1.1322	1.1262	.9944	.2355E-04	.2575E-01	.7914
439.0088	.0359	11.3457	17.4110	215.4701	9.2823	1.1319	1.1259	.9943	.2401E-04	.2654E-01	.7931
449.0088	.0300	13.8827	17.7369	217.9357	9.4037	1.1319	1.1261	.9943	.2447E-04	.2735E-01	.7947
459.0088	.0251	16.9325	18.0650	220.4594	9.5242	1.1321	1.1269	.9946	.2493E-04	.2817E-01	.7964
469.0088	.0211	20.5848	18.3948	223.0659	9.6441	1.1326	1.1285	.9952	.2541E-04	.2900E-01	.7982
479.0088	.0178	24.9413	18.7263	225.7851	9.7635	1.1335	1.1310	.9961	.2589E-04	·2985E-01	.7999
489.0088	.0151	30.1167	19.0591	228.6534	9.8827	1.1347	1.1346	•9975	.2638E-04	.3072E-01	.8016
499.0088	.0128	36.2395	19.3931	231.7140	10.0016	1.1363	1.1395	.9996	.2688E-04	.3161E-01	.8034
509.0088	.0109	43.4533	19.7282	235.0176	10.1205	1.1383	1.1459	1.0024	.2740E-04	.3253E-01	.8054
519.0088	.0094	51.9171	20.0642	238.6225	10.2394	1.1406	1.1543	1.0061	.2796E-04	.3348E-01	.8078
529.0088	.0081	61.8069	20.4014	242.5953	10.3580	1.1432	1.1648	1.0110	.2854E-04	.3445E-01	.8106
539.0088	.0070	73.3172	20.7398	247.0102	10.4764	1.1462	1.1778	1.6174	.2917E-04	.3547E-01	.8138
549.0088	.0061	86.6893	21.0797	251.9542	10.5942	1.1495	1.1938	1.0253	.2985E-04	.3653E-01	.8176
559.0088	.0053	102.1164	21.4216	257.5089	10.7106	1.1530	1.2130	1.0352	.3058E-04	.3764E-01	.8221
569.0088	.0046	1 19.8823	21.7661	263.7756	10.8252	1.1567	1.2359	1.0473	.3138E-04	.3880E-01	.8271
579.0088	.0041	140.2816	22.1141	270.8620	10.9370	1.1604	1.2630	1.0620	.3226E-04	.4002E-01	.8328
588.8889	.0036	163.3459	22.4621	278.7868	11.0437	1.1641	1.2944	1.0793	.3321E-04	.4129E-01	.8390

88

TABLE IV.- Continued

				2	/R=32.5000)					
T	V	p	h∕RT	a	c _p /R	γ	Υe	Z	μ	k	N _{Pr}
178.3128	15.4476	.0108	10.3408	143.3795	5.5285	1.2210	1.2207	.9998	.1091E-04	.6913E-C2	.8244
188.3128	12.0084	.0146	10.5461	146.8695	5.6950	1.2132	1.2128	.9997	•1150E-04	• 7654E-02	.8085
198.3128	9.3782	.0197	10.7574	150.2664	5.8599	1.2060	1.2056	.9997	.1208E-04	.8395E-02	.7968
208.3128	7.3544	.0264	10.9747	153.5777	6.0230	1.1993	1.1989	.9997	.1265E-04	.9136E-02	.7882
218.3128	5.7894	.0351	11.1979	156.8098	6.1845	1.1932	1.1927	•9996	.1322E-04	.9876E-02	.7819
228.3128	4.5737	.0465	11.4269	159.9686	6.3441	1.1874	1.1869	•9996	.1377E-04	.1062E-01	.7773
238.3128	3.6253	.0613	11.6616	163.0589	6.5020	1.1821	1.1816	.9995	.1432E-04	•1136E-01	.7742
248.3128	2.8826	.0803	11.9021	166.0852	6.6579	1.1772	1.1765	.9995	.1485E-04	.1210E-01	.7721
258.3128	2.2981	.1047	12.1482	169.0515	6.8120	1.1726	1.1718	.9994	.1538E-04	.1284E-01	.7709 .7703
268.3128	1.8385 1.4743	.1360	12.3997	171.9613	6.9642 .7.1144	1.1682	1.1674	.9993	.1590E-04	.1358E-01 .1433E-01	.7703
278.3128 288.3128	1.1854	.1759 .2266	12.6567 12.9191	174.8178 177.6238	7.2626	1.1642	1.1633 1.1594	.9992 .9991	.1642E-04 .1693E-04	.1433E-01	.7707
298.3128	.9554	.2908	13.1867	180.3821	7.4088	1.1569	1.1557	.9991	.1743E-04	.1581E-01	.7714
308.3128	•7720	•3719	13.4595	183.0950	7.5529	1.1536	1.1523	9989	.1792E-04	.1655E-01	.7724
318.3128	.6252	.4741	13.7373	185.7650	7.6950	1.1505	1.1491	9987	.1841E-04	.1730E-01	.7735
328.3128	.5075	.6023	14.0200	188.3941	7.8350	1.1477	1.1460	9985	.1889E-04	.1804E-01	.7748
338.3128	.4129	.7628	14.3075	190.9847	7.9729	1.1450	1.1431	9984	.1936E-04	.1879E-01	.7762
348.3128	.3366	.9630	14.5998	193.5388	8.1087	1.1425	1.1404	.9982	.1983E-04	.1954E-01	.7777
358.3128	.2751	1.2121	14.8966	196.0588	8.2424	1.1402	1.1379	.9980	.2030E-04	.2028E-01	.7792
368.3128	. 2252	1.5212	15.1978	198.5470	8.3740	1.1380	1.1355	.9978	.2076E-04	.2103E-01	.7807
378.3128	.1848	1.9035	15.5033	201.0062	8.5035	1.1361	1.1333	9975	.2121E-04	.2178E-01	.7822
388.3128	.1520	2.3752.	15.8130	203.4393	8.6309	1.1343	1.1313	.9973	.2166E-04	.2254E-01	.7837
398.3128	.1253	2.9553	16.1265	205.8499	8.7563	1.1327	1.1294	.9971	.2211E-04	.2330E-01	.7852
408.3128	.1035	3.6668	16.4438	208.2421	8.8797	1.1313	1.1278	.9969	.2256E-04	.2406E-01	.7866
418.3128	.0857	4.5369	16.7648	210.6210	9.0012	1.1300	1.1263	.9967	.2300E-04	.2482E-01	.788 0
428.3128	.0711	5.5977	17.0890	212.9926	9.1208	1.1290	1.1251	.9965	.2344E-04	.2559E- 01	.7894
438.3128	.0591	6.8870	17.4165	215.3646	9.2387	1.1281	1.1242	.9964	.2388E-04	.2636E-01	.7907
448.3128	.0493	8.4493	17.7468	217.7460	9,3549	1.1274	1.1236	.9964	.2433E-04	.2714E-01	.7920
458.3128	.0412	10.3360	18.0799	220.1483	9.4695	1.1270	1.1234	9965	.2477E-04	.2793E-01	. 7933
468.3128	.0345	12.6071	18.4154	222.5852	9.5827	1.1268	1.1236	.9967	.2521E-04	.2873E-01	. 7945
478.3128	.0290	15.3314	18.7531	225.0740	9.6946	1.1268	1.1243	.9971	.2566E-04	.2953E-01	.7958
488.3128	•0244	18.5879	19.0928	227.6352	9.8053	1.1271	1.1257	.9978	.2612E-04	.3035E-01	.7970
498.3128	.0207	22.4662	19.4343	230.2941	9.9150	1.1277	1.1279	.9989	.2658E-04	.3119E-01	.7983
508.3128	.0175	27.0680	19.7773	233.0806	10.0239	1.1286	1.1309	1.0003	.2705E-04	.3204E-01	.7995
518.3128	.0149	32.5070	20.1216	236.0305	10.1321 10.2396	1.1297	1.1351	1.0023	.2752E-04	.3290E-01 .3379E-01	.8007
528.3128	.0127	36.9109	20.4671	239.1854			1.1405		.2801E-04		
538.3128 548.3128	.0109 .0094	46.4210 55.1940	20.8138	242.5937 246.3101	10.3465 10.4529	1.1330	1.1475	1.0085	.2852E-04 .2906E-04	.3470E-01 .3564E-01	.8033 .8050
558.3128	.0081	65.4026	21.5106	250.3963	10.4529	1.1375	1.1671	1.0129	.2963E-04	.3662E-01	.8071
568.3128	.0070	77.2592	21.8608	254.9241	10.6636	1.1402	1.1803	1.0255	.3023E-04	.3762E-01	.8095
578.3128	.0061	90.9350	22.2128	259.9610	10.7673	1.1432	1.1961	1.0255	.3089E-04	.3867E-01	.8125
588.3128	.0054	106.6769	22.5668	265.5899	10.8694	1.1464	1.2150	1.0341	.3159E-04	.3976E-01	.8159
588.8889	.0053	107.6383	22.5873	265.9311	10.8752	1.1466	1.2162	1.0452	.3164E-04	.3983E-01	.8161
20220007	- 3033										

TABLE IV .- Continued

					S/R=33.000	0					
Т	٧	р	h/RT	а	c _p /R	γ	Υe	Z	μ	k	N _{Pr}
198.3677 208.3677	15.4476 12.1112	.0120 .0160	10.7589 10.9762	150.2959 153.6086	5.8598 6.0228	1.2058	1.2056 1.1989	•9998 •9998	.1209E-04 .1266E-04	.8398E-02	• 7966 • 7880
218.3677	9.5338	.0214	11.1995	156.8424	6.1841	1.1930	1.1927	.9998	.1322E-04	.9880E-02	•7817
228.3677 238.3677	7.5316 5.9698	.0283 .0372	11.4286 11.6635	160.0032 163.6960	6.3436 6.5012	1.1873	1.1870 1.1816	.9997 .9997	.1377E-04 .1432E-04	.1062E-01	•7772 •7740
248.3677	4.7466	.0488	11.9041	166.1253	6.6570	1.1770	1.1766	9997	.1486E-04	.1210E-01	.7720
258.3677	3.7841	.0636	12.1503	169.0949	6.8108	1.1723	1.1719	•9996	•1539E-04	-1284E-01	• 7707
268.3677 278.3677	3.0272 2.4282	.0826 .1068	12.4021 12.6593	172.0086 174.8696	6.9627 7.1126	1.1680 1.1639	1.1675 1.1634	.9996 .9995	.1591E-04 .1642E-04	.1358E-01 .1433E-01	.7702 .7701
288.3677	1.9515	.1377	12.9219	177.6806	7.2605	1.1601	1.1595	.9995	.1693E-04	.1507E-01	.7705
298.3677 308.3677	1.5728	•1768	13.1898	180.4445	7.4063	1.1566	1.1559	• 9994	.1743E-04	.1581E-01	•7712
318.3677	1.2706 1.0289	.2261 .2883	13.4629 13.7411	183.1637 185.8404	7.5500 7.6916	1.1532 1.1501	1.1524 1.1492	.9993 .9992	.1792E-04 .1840E-04	.1655E-01 .1729E-01	•7721 •7733
328.3677	.8350	.3663	14.0243	188.4768	7.8310	1.1472	1.1462	•9991	.1888E-04	.1804E-01	.7745
338.3677 348.3677	•6792 •5536	.4640 .5860	14.3124 14.6053	191.0750 193.6370	7.9682 8.1032	1.1444	1.1433 1.1406	.9990 .9989	.1936E-04 .1983E-04	.1878E-01 .1953E-01	•7759 •7773
358.3677	.4523	.7379	14.9029	196.1648	8.2360	1.1394	1.1380	.9988	.2029E-04	.2027E-01	.7788
368.3677	•3702	.9264	15.2050	198.6603	8.3666	1.1372	1.1356	•9986	.2075E-04	.2102E-01	-7802
378.3677 388.3677	•3037 •2496	1.1599 1.4482	15.5115 15.8224	201.1258 203.5635	8.4949 8.6209	1.1351	1.1334	.9985 .9984	.2120E-04 .2165E-04	.2176E-01 .2251E-01	.7817 .7831
398.3677	.2056	1.8032	16.1374	205.9759	8.7447	1.1314	1.1294	.9982	.2209E-04	.2326E-01	.7845
408.3677	•1697 •1404	2.2393	16.4564 16.7792	208.3660	8.8663	1.1297	1.1276	.9981 .9979	.2253E-04	.2402E-01	.7858
418.3677 428.3677	.1163	2•7734 3•4258	17.1057	210.7371 213.0929	8.9856 9.1027	1.1282	1.1260 1.1245	.9978	.2297E-04 .2340E-04	.2477E-01 .2553E-01	•7871 •7883
438.3677	•0966	4.2205	17.4358	215.4383	9.2177	1.1257	1.1233	.9978	.2383E-04	.2629E-01	.7894
448.3677 458.3677	.0804 .0671	5.1858 6.3550	17.7691 18.1056	217.7788 220.1210	9.3306 9.4414	1.1247 1.1239	1.1223 1.1215	.9977 .9977	.2426E-04 .2469E-04	.2705E-01 .2782E-01	•7905 •7915
468.3677	.0561	7.7669	18.4449	222.4732	9.5503	1.1232	1.1210	9979	.2512E-04	.2860E-01	7925
478.3677	.0470	9.4669	18.7870	224.8454	9.6572	1.1227	1.1208	.9981	.2555E-04	.2938E-01	.7934
488.3677 498.3677	.0395 .0333	11.5074 13.9488	19.1316 19.4784	227.2495 229.7002	9.7624 9.8659	1.1224	1.1211	.9985 .9990	.2598E-04 .2641E-04	.3017E-01 .3097E-01	•7942 •7950
508.3677	.0281	16.8601	19.8273	232.2151	9.9678	1.1225	1.1230	9998	.2685E-04	.3177E-01	.7958
518.3677	.0238	20.3202	20.1780	234.8153	10.0682	1.1228	1.1249	1.0009	.2729E-04	.3259E-01	.7965
528 . 36 7 7 538 . 3677	.0202 .0172	24.4183 29.2546	20.5304 20.8842	237.5258 240.3765	10.1673 10.2651	1.1234	1.1276 1.1312	1.0024	.2774E-04 .2820E-04	.3342E-01 .3427E-01	•7972 •7979
548.3677	.0147	34.9414	21.2393	243.4018	10.3618	1.1254	1.1358	1.0069	.2866E-04	.3514E-01	.7985
558.3677 568.3677	.0126	41.6037 49.3797	21.5956 21.9530	246.6418 250.1419	10.4574	1.1268	1.1417	1.0101	.2914E-04	.3602E-01	.7991 .7999
578.3677	.0109 .0094	58.4218	22.3116	253.9532	10.5520 10.6455	1.1285 1.1304	1.1491 1.1582	1.0141	.2963E-04 .3016E-04	.3693E-01 .3787E-01	.8009
588.3677	.0082	68.8975	22.6715	258.1319	10.7379	1.1326	1.1692	1.0253	.3071E-04	.3883E-01	.8022
588.8889	.0081	69.4933	22.6902	258.3622	10.7427	1.1328	1.1698	1.0257	.3074E-04	.3888E-01	.8023
				s	/R=33.500)					
T	V	p	h/RT	a		γ	γ _e	Z	μ	k	N _{Pr}
T 219•1227	V 15.4428	p •0132	h/RT		C/R=33.5006 C/R p 6.1954		γ _e	Z •9999		k •9935E-02	N Pr •7812
219•1227 229•1227	15.4428 12.2038	.0132 .0175	11.2169 11.4465	a 157.0928 160.2499	c /R p 6.1954 6.3547	γ 1.1925 1.1868	1.1923 1.1866	.9999	•1326E-04 •1381E-04	.9935E-02 .1068E-01	•7812 •7768
219.1227 229.1227 239.1227	15.4428 12.2038 9.6741	.0132 .0175 .0230	11.2169 11.4465 11.6818	a 157.0928 160.2499 163.3394	c /R p 6.1954 6.3547 6.5121	γ 1.1925 1.1868 1.1815	1.1923 1.1866 1.1813	.9999 .9998 .9998	.1326E-04 .1381E-04 .1436E-04	.9935E-02 .1068E-01 .1142E-01	.7812 .7768 .7738
219•1227 229•1227	15.4428 12.2038	.0132 .0175	11.2169 11.4465	a 157.0928 160.2499	c /R p 6.1954 6.3547	γ 1.1925 1.1868	1.1923 1.1866	.9999	•1326E-04 •1381E-04	.9935E-02 .1068E-01	•7812 •7768
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068	.0132 .0175 .0230 .0302 .0394	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458	C R p 6.1954 6.3547 6.5121 6.6676 6.8211 6.9727	Y 1.1925 1.1868 1.1815 1.1765 1.1719 1.1676	1.1923 1.1866 1.1813 1.1763 1.1716 1.1673	.9999 .9998 .9998 .9998 .9998	.1326E-04 .1381E-04 .1436E-04 .1490E-04 .1542E-04 .1594E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01	.7812 .7768 .7738 .7718 .7706
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 279.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368	.0132 .0175 .0230 .0302 .0394 .0511	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058	c R p 6.1954 6.3547 6.5121 6.6676 6.8211 6.9727 7.1223	Y 1.1925 1.1868 1.1815 1.1765 1.1719 1.1676 1.1635	1.1923 1.1866 1.1813 1.1763 1.1716 1.1673 1.1632	.9999 .9998 .9998 .9998 .9998 .9997	.1326E-04 .1381E-04 .1436E-04 .1490E-04 .1594E-04 .1594E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1438E-01	.7812 .7768 .7738 .7718 .7706 .7701
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 279.1227 289.1227 299.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514	.0132 .0175 .0230 .0362 .0394 .0511 .0661 .0851	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805	C R p 6.1954 6.3547 6.5121 6.6676 6.8211 6.9727 7.1223 7.2698 7.4152	Y 1.1925 1.1868 1.1815 1.1765 1.1719 1.1676 1.1635 1.1597 1.1561	1.1923 1.1866 1.1813 1.1763 1.1716 1.1673 1.1632 1.1593 1.1557	.9999 .9998 .9998 .9998 .9997 .9997 .9997	.1326E-04 .1381E-04 .1436E-04 .1490E-04 .1542E-04 .1594E-04 .1646E-04 .1696E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1438E-01 .1512E-01	.7812 .7768 .7738 .7718 .7706 .7701 .7700 .7704
219.1227 229.1227 239.1227 259.1227 259.1227 269.1227 279.1227 289.1227 299.1227 309.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613	.0132 .0175 .0230 .0302 .0394 .0511 .0661 .0851 .1093	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113 13.4849	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805 183.4003	C R 6.1954 6.3547 6.5121 6.6676 6.8211 6.9727 7.1223 7.2698 7.4152 7.5585	Y 1.1925 1.1868 1.1815 1.1765 1.1779 1.1676 1.1635 1.1597 1.1561 1.1528	1.1923 1.1866 1.1813 1.1763 1.1716 1.1673 1.1632 1.1593 1.1557 1.1523	.9999 .9998 .9998 .9998 .9997 .9997 .9997 .9996	.1326E-04 .1381E-04 .1436E-04 .1490E-04 .1542E-04 .1594E-04 .1646E-04 .1746E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1438E-01 .1512E-01 .1586E-01	.7812 .7768 .7738 .7718 .7706 .7701 .7700 .7704 .7711
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 279.1227 289.1227 299.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514	.0132 .0175 .0230 .0362 .0394 .0511 .0661 .0851	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805	C R 6.1954 6.3547 6.5121 6.6676 6.8211 7.1223 7.2698 7.4152 7.5585 7.6996	Y 1.1925 1.1868 1.1815 1.1765 1.1719 1.1676 1.1635 1.1597 1.1561 1.1528 1.1496	1.1923 1.1866 1.1813 1.1763 1.1716 1.1673 1.1632 1.1593 1.1557	.9999 .9998 .9998 .9998 .9997 .9997 .9997	.1326E-04 .1381E-04 .1436E-04 .1490E-04 .1542E-04 .1594E-04 .1646E-04 .1696E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1438E-01 .1512E-01	.7812 .7768 .7738 .7718 .7706 .7701 .7700 .7704
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 279.1227 289.1227 309.1227 319.1227 329.1227 339.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.6693 1.3548 1.1020	.0132 .0175 .0230 .0302 .0394 .0511 .0661 .1093 .1398 .1782 .2264	11.2169 11.465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113 13.4849 13.7637 14.0476 14.3364	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805 183.4003 186.0782 188.7163 191.3166	C R p 6.1954 6.3547 6.5121 6.6676 6.8211 6.9727 7.1223 7.4152 7.45585 7.6996 7.8385 7.9752	Y 1.1925 1.1868 1.1815 1.1765 1.1719 1.1635 1.1597 1.1561 1.1528 1.1496 1.14467 1.1439	1.1923 1.1866 1.1813 1.1763 1.1716 1.1673 1.1593 1.1557 1.1523 1.1523 1.1491 1.1460 1.1432	.9999 .9998 .9998 .9998 .9997 .9997 .9997 .9996 .9996 .9996	.1326E-04 .1381E-04 .1436E-04 .1490E-04 .1594E-04 .1594E-04 .1646E-04 .1795E-04 .1795E-04 .1844E-04 .1839E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1438E-01 .1512E-01 .1586E-01 .1660E-01 .1735E-01 .1838E-01	.7612 .7768 .7738 .7718 .7706 .7701 .7700 .7704 .7711 .7721 .7732 .7745
219.1227 229.1227 239.1227 259.1227 269.1227 269.1227 279.1227 289.1227 299.1227 309.1227 319.1227 329.1227 349.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.1658 2.5514 2.0613 1.6693 1.3548 1.1020 8983	.0132 .0175 .0230 .0302 .0394 .0511 .0861 .1093 .1398 .1782 .2264 .2264 .3621	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113 13.4849 13.7637 14.0476 14.3364 14.6300	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809	C R p 6.1954 6.3547 6.6761 6.8211 6.9727 7.1223 7.2698 7.4152 7.5585 7.6996 7.8385 8.1095	Y 1.1925 1.1868 1.1815 1.1765 1.1719 1.1635 1.1597 1.1561 1.1528 1.1496 1.1496 1.1439 1.1439	1.1923 1.1866 1.1813 1.1763 1.1716 1.1673 1.1632 1.1593 1.1557 1.1523 1.1523 1.1491 1.1460	. 9999 . 9998 . 9998 . 9998 . 9997 . 9997 . 9997 . 9996 . 9995 . 9995 . 9995	.1326E-04 .1381E-04 .1436E-04 .1490E-04 .1542E-04 .1594E-04 .1696E-04 .1746E-04 .1795E-04 .1846E-04 .1892E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1512E-01 .1586E-01 .1660E-01 .1735E-01 .1809E-01 .1957E-01	.7612 .7768 .7738 .7718 .7706 .7701 .7700 .7704 .7711 .7721 .7732 .7745 .7758
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 279.1227 289.1227 309.1227 319.1227 329.1227 339.1227 349.1227 349.1227 349.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.6693 1.3548 1.1020 .8983 .7338 .7338	.0132 .0175 .0230 .0394 .0511 .0661 .0851 .1093 .1398 .1782 .2264 .2867 .3621 .4560	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113 13.4849 13.7637 14.0476 14.3364 14.6300 14.9284	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805 180.6805 184.003 186.0782 188.7163 191.3166 193.8809 196.4111 198.9090	C R p 6.1954 6.3547 6.5121 6.6676 6.8211 6.9727 7.1223 7.2698 7.4152 7.5585 7.6996 7.8385 7.9752 8.1095 8.2416	Y 1.1925 1.1868 1.1815 1.1765 1.17719 1.1635 1.1597 1.1561 1.1528 1.1496 1.1467 1.1439 1.1413 1.1388 1.1365	1.1923 1.1866 1.1813 1.1763 1.1766 1.1673 1.1632 1.1553 1.1553 1.1553 1.1491 1.1460 1.1432 1.1405 1.1379	.999 .998 .998 .998 .998 .997 .997 .997	.1326E-04 .1381E-04 .1436E-04 .1490E-04 .1542E-04 .1542E-04 .1646E-04 .1746E-04 .1746E-04 .1844E-04 .1892E-04 .1939E-04 .2032E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1512E-01 .1586E-01 .1660E-01 .1735E-01 .1809E-01 .183E-01 .2032E-01	.7612 .7768 .7738 .7718 .7706 .7701 .7700 .7704 .7711 .7721 .7732 .7745 .77758 .77772 .77766
219.1227 229.1227 239.1227 259.1227 269.1227 269.1227 279.1227 289.1227 309.1227 319.1227 329.1227 349.1227 359.1227 359.1227 369.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.6693 1.3548 1.1020 .8983 .7338 .6006	.0132 .0175 .0230 .0302 .0394 .0511 .0861 .1093 .1398 .2264 .2867 .3621 .4560 .5725	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113 13.4849 13.7637 14.0476 14.6300 14.9284 15.2314	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809 196.4111 198.9090 201.3765	C R 6.1954 6.3547 6.5121 6.6676 6.8211 6.9727 7.1223 7.2698 7.4152 7.5585 7.6996 7.8385 7.9752 8.2416 8.3714 8.4988	Y 1.1925 1.1868 1.1815 1.1765 1.1719 1.1676 1.1597 1.1561 1.1597 1.1561 1.1496 1.1436 1.1436 1.1438 1.1365 1.1365	1.1923 1.1866 1.1813 1.1716 1.1673 1.1593 1.1593 1.1593 1.1491 1.1492 1.1492 1.1405 1.1379 1.1333	.9999 .998 .998 .998 .997 .997 .997 .997	.1326E-04 .1381E-04 .1436E-04 .1490E-04 .1542E-04 .1594E-04 .1696E-04 .1795E-04 .1846E-04 .1846E-04 .1892E-04 .1939E-04 .2032E-04 .2077E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1438E-01 .1512E-01 .153E-01 .1660E-01 .1735E-01 .1809E-01 .1809E-01 .2032E-01 .2106E-01	.7612 .7768 .7768 .7718 .7706 .7701 .7700 .7704 .7711 .7721 .7732 .7745 .7758 .7778 .7778 .7801 .7815
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 279.1227 289.1227 309.1227 319.1227 329.1227 349.1227 349.1227 359.1227 369.1227 369.1227 369.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.6693 1.3548 1.1020 8983 .7338 6006 .4926	.0132 .0175 .0230 .0302 .0394 .0511 .0661 .1093 .1398 .1782 .2264 .2867 .3621 .4560 .5725 .7169 .8953	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113 13.4849 13.7637 14.0476 14.3364 14.6300 14.9284 15.2314 15.5389 15.85389	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809 196.4111 198.9090 201.3765 203.8154	C R 6.1954 6.3547 6.5121 6.6676 6.8211 7.1223 7.2698 7.4152 7.5585 7.6996 7.8385 7.9752 8.1095 8.2416 8.3714 8.4988 8.6238	Y 1.1925 1.1868 1.1815 1.1765 1.1719 1.1676 1.1537 1.1597 1.1561 1.1528 1.1496 1.1467 1.1438 1.1368 1.1365 1.1363	1.1923 1.1866 1.1813 1.1763 1.1763 1.1673 1.1632 1.1557 1.1523 1.1491 1.1460 1.1432 1.1405 1.1405 1.1405 1.1405 1.1333 1.1333	.9998 .9998 .9998 .9998 .9997 .9997 .9997 .9996 .9995 .9994 .9993 .9992 .9992	.1326E-04 .1381E-04 .1436E-04 .1490E-04 .1542E-04 .1594E-04 .1646E-04 .1746E-04 .1746E-04 .1892E-04 .1892E-04 .1939E-04 .2032E-04 .2032E-04 .2122E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1512E-01 .1586E-01 .1660E-01 .1735E-01 .1809E-01 .189E-01 .1957E-01 .2032E-01 .2106E-01 .2181E-01	.7612 .7768 .7738 .7718 .7706 .7701 .7704 .7711 .7721 .7732 .7732 .7758 .7775 .7758 .7776 .7801 .7815
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 279.1227 289.1227 309.1227 319.1227 329.1227 349.1227 349.1227 359.1227 369.1227 369.1227 369.1227 369.1227 369.1227 369.1227 369.1227 369.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.6693 1.3548 1.1020 8983 .7338 .6006 4926 4048 3334	.0132 .0175 .0230 .0302 .0394 .0511 .0861 .1093 .1398 .2264 .2867 .3621 .4560 .5725 .7169 .8953 .1150	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113 13.4849 13.7637 14.0476 14.6300 14.9284 15.2314 15.5389 15.8508 16.1670 16.4873	a 157.0928 160.2499 163.3394 166.3660 169.3336 175.1058 175.1058 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809 196.4111 198.9090 201.3765 203.8154 206.2278 208.6158	C R 6.1954 6.31947 6.5121 6.6676 6.8211 6.9727 7.1223 7.2698 7.4152 7.5585 7.9752 8.2416 8.3714 8.4988 8.6238 8.7464	Y 1.1925 1.1868 1.1815 1.1765 1.1779 1.1635 1.1597 1.1561 1.1528 1.1496 1.1467 1.1439 1.1368 1.1368 1.1368 1.1368 1.1323 1.1304 1.1323	1.1923 1.1866 1.1813 1.1763 1.1716 1.1673 1.1593 1.1593 1.1593 1.1491 1.1492 1.1405 1.1432 1.1405 1.1379 1.1333 1.1312 1.1292 1.1274	.999 .998 .998 .998 .997 .997 .997 .997	.1326E-04 .1381E-04 .1436E-04 .1490E-04 .1542E-04 .1594E-04 .1696E-04 .1746E-04 .1795E-04 .184E-04 .1892E-04 .1939E-04 .2032E-04 .2077E-04 .2122E-04 .2167E-04 .2211E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1438E-01 .1512E-01 .1586E-01 .1660E-01 .1683E-01 .1809E-01 .1809E-01 .2032E-01 .2106E-01 .2181E-01 .2255E-01 .2330E-01	.7812 .7768 .7768 .7718 .7701 .7701 .7704 .7711 .7721 .7721 .7745 .7745 .7758 .7772 .7766 .7801 .7801 .7828 .7828 .7828 .7842
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 279.1227 389.1227 319.1227 319.1227 329.1227 349.1227 349.1227 359.1227 369.1227 369.1227 369.1227 369.1227 369.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.1658 2.5514 2.0613 1.6693 1.3548 1.1020 .8983 .7338 .6006 .4926 .4048 .3334 .2751	.0132 .0175 .0230 .0302 .0394 .0511 .0661 .1093 .1398 .1782 .2264 .2867 .3621 .4560 .5725 .7169 .8953 1.1150	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.7637 14.0476 14.3364 14.6300 14.9284 15.5389 16.1670 16.4873 16.8116	157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809 196.4111 198.9090 201.3765 203.8154 206.2278 208.6158	C R 6.1954 6.3547 6.5121 6.6676 6.8211 6.9727 7.1223 7.4558 7.4558 7.4558 7.6996 7.8385 8.1095 8.1095 8.2416 8.3714 8.4988 8.7464 8.8667 8.9845	Y 1.1925 1.1868 1.1815 1.1765 1.1779 1.1676 1.1597 1.1561 1.1598 1.1496 1.1443 1.1443 1.1365 1.1343 1.1388 1.1365 1.1343 1.1388	1.1923 1.1866 1.1813 1.1763 1.1763 1.1673 1.1632 1.1557 1.1523 1.1491 1.1460 1.1432 1.1405 1.1435 1.1337 1.1336 1.1331 1.1312 1.1274 1.1274	.9998 .9998 .9998 .9998 .9997 .9997 .9997 .9996 .9995 .9994 .9992 .9992 .9992 .9992 .9998 .9988	.1326E-04 .1381E-04 .1430E-04 .1490E-04 .1594E-04 .1594E-04 .1696E-04 .1795E-04 .1844E-04 .1892E-04 .1939E-04 .2032E-04 .2032E-04 .2167E-04 .2167E-04 .2255E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1512E-01 .1586E-01 .1660E-01 .1735E-01 .1883E-01 .1883E-01 .1957E-01 .2032E-01 .2106E-01 .2136E-01 .2255E-01 .2330E-01	.7612 .7768 .7768 .7718 .7706 .7701 .7700 .7704 .7711 .7721 .7732 .7758 .7758 .7758 .7758 .7758 .7801 .7815 .7828 .7842 .7854
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 279.1227 289.1227 309.1227 319.1227 329.1227 349.1227 349.1227 359.1227 369.1227 369.1227 369.1227 369.1227 369.1227 369.1227 369.1227 369.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.6693 1.3548 1.1020 .8983 .7338 .6006 .4926 .4048 .3334 .2274 .1884 .1564	.0132 .0175 .0230 .0302 .0394 .0511 .0661 .0851 .1093 .1398 .1782 .2264 .2867 .3621 .4560 .5725 .7169 .8953 1.1150 1.3851 1.7162 2.1211 2.6148	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.4219 12.479 12.9428 13.2113 13.4849 13.7637 14.0476 14.6300 14.9284 15.5389 15.8508 16.1670 16.4873 16.8116 17.1398 17.4718	a 157.0928 160.2499 163.3394 166.3660 169.3336 175.1058 175.1058 187.9165 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809 196.4111 198.9090 201.3765 203.8154 206.2278 208.6158 210.9818 213.3285 215.6591	C P 6.1954 6.3547 6.5121 6.6676 6.8211 6.9727 7.1223 7.2698 7.2598 7.4152 7.5585 7.6996 7.8385 7.9752 8.2416 8.3714 8.4988 8.6238 8.74647 8.9845 9.0999 9.2130	Y 1.1925 1.1868 1.1815 1.1765 1.1779 1.1635 1.1597 1.1561 1.1528 1.1496 1.1467 1.1439 1.1368 1.1368 1.1368 1.1368 1.1323 1.1304 1.1323	1.1923 1.1866 1.1813 1.1716 1.1673 1.1632 1.1557 1.1523 1.1491 1.1492 1.1405 1.1432 1.1379 1.1379 1.1333 1.1312 1.1292 1.1274 1.1257 1.1241	.999 .998 .998 .998 .997 .997 .997 .999 .999	.1326E-04 .1381E-04 .1436E-04 .1490E-04 .1542E-04 .1594E-04 .1696E-04 .1746E-04 .1795E-04 .184E-04 .1892E-04 .1939E-04 .2032E-04 .2077E-04 .2122E-04 .2167E-04 .2211E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1518E-01 .1586E-01 .1660E-01 .1683E-01 .1809E-01 .1809E-01 .2032E-01 .2131E-01 .2255E-01 .2330E-01 .2405E-01 .2405E-01 .2405E-01 .2405E-01 .2405E-01	.7812 .7768 .7768 .7718 .7701 .7701 .7704 .7711 .7721 .7721 .7745 .7745 .7758 .7772 .7766 .7801 .7801 .7828 .7828 .7828 .7842
219.1227 229.1227 239.1227 249.1227 259.1227 279.1227 289.1227 309.1227 319.1227 329.1227 349.1227 349.1227 349.1227 369.1227 369.1227 369.1227 409.1227 409.1227 429.1227 429.1227 429.1227 439.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.3548 1.1020 8.983 -7338 -7338 -4048 3.334 -2751 1.884 -2751 1.884 -1564	.0132 .0175 .0230 .0394 .0511 .0661 .0851 .1093 .1398 .1782 .2264 .2867 .3621 .4560 .5725 .7169 .8953 1.1150 1.3851 1.7162 2.1211 2.6148	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113 13.4849 13.7637 14.0476 14.3364 14.3364 14.5284 15.5389 16.1670 16.4873 16.8116 17.1398 17.4718 17.8072	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805 180.6805 181.3166 193.8809 196.4111 198.9090 201.3765 203.8154 206.2278 208.6158 210.9818 213.3285 215.6591 217.9771	CPR 6.1954 6.3547 6.5121 6.6676 6.8211 6.9727 7.1223 7.2698 7.4152 7.5585 7.4996 7.8385 8.1095 8.1095 8.2416 8.4988 8.6238 8.7464 8.8667 9.0999 9.2130	Y 1.1925 1.1868 1.1815 1.1765 1.1767 1.1636 1.1561 1.1552 1.1561 1.1528 1.1496 1.1439 1.1439 1.1413 1.1388 1.1365 1.1323 1.1323 1.1323 1.1271 1.1271 1.1271 1.1271 1.1256 1.1242	1.1923 1.1866 1.1813 1.1763 1.1673 1.1673 1.1632 1.15597 1.1523 1.1491 1.1460 1.1432 1.1405 1.1435 1.1337 1.1379 1.1356 1.1331 1.1292 1.1274 1.1257 1.1257	.9998 .9998 .9998 .9998 .9997 .9997 .9997 .9996 .9995 .9994 .9992 .9992 .9992 .9992 .9990 .9989 .9987 .9987	.1326E-04 .1381E-04 .1430E-04 .1490E-04 .1542E-04 .1542E-04 .1546E-04 .1746E-04 .1746E-04 .1795E-04 .1844E-04 .1892E-04 .2032E-04 .2032E-04 .212E-04 .212E-04 .221E-04 .221E-04 .221E-04 .2342E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1512E-01 .1586E-01 .1660E-01 .1735E-01 .1809E-01 .2032E-01 .2032E-01 .2181E-01 .2255E-01 .2480E-01 .2480E-01	.7612 .7768 .7768 .7718 .7706 .7701 .7700 .7704 .7711 .7721 .7732 .7758 .7778 .7801 .7801 .7815 .7828 .7842 .7854 .7877 .7877
219.1227 229.1227 239.1227 249.1227 259.1227 279.1227 279.1227 289.1227 309.1227 319.1227 329.1227 339.1227 349.1227 369.1227 369.1227 369.1227 499.1227 409.1227 409.1227 419.1227 429.1227 439.1227 439.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.3548 1.1020 8983 -7338 6006 4926 4048 3334 2751 2274 11884 1564 1300	.0132 .0175 .0230 .0394 .0511 .0661 .0851 .1093 .1398 .1782 .2264 .2864 .3621 .4560 .5725 .7169 .8953 .11150 .1,3851 1.7162 .2,1211 .2,6148 .3,2154 .3,2440	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.46797 12.9428 13.2113 13.4849 13.7637 14.0476 14.9384 15.5389 15.8508 16.1670 16.4873 16.8116 17.1398 17.4718 17.8072 18.1461	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 175.1058 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809 196.4111 198.9090 201.3765 203.8154 208.6158 210.9818 213.3285 215.6591 217.9771 220.2869	C R p 6.1954 6.3547 6.6761 6.8211 6.9727 7.1223 7.2698 7.4152 7.5585 7.6996 7.8385 7.9752 8.2416 8.3714 8.4988 8.6238 8.667 8.9845 9.0999 9.2130 9.3236 9.4319	Y 1.1925 1.1868 1.1815 1.1765 1.1769 1.1635 1.1597 1.1561 1.1528 1.1496 1.1439 1.1439 1.1438 1.1365 1.1343 1.1323 1.1323 1.1324 1.1271 1.1271 1.1271 1.1272 1.1272 1.1272	1.1923 1.1866 1.1813 1.1763 1.1716 1.1673 1.1593 1.1597 1.1523 1.1491 1.1405 1.1437 1.1356 1.1312 1.1292 1.1292 1.1274 1.1257 1.1241 1.1227	.999 .998 .998 .998 .997 .997 .997 .999 .999	.1326E-04 .1381E-04 .1436E-04 .1542E-04 .1542E-04 .1594E-04 .1646E-04 .1746E-04 .1795E-04 .1846E-04 .1892E-04 .2032E-04 .2032E-04 .2167E-04 .2167E-04 .2167E-04 .2255E-04 .2341E-04 .2341E-04 .2341E-04 .246E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1512E-01 .1586E-01 .1586E-01 .1735E-01 .1883E-01 .1883E-01 .2032E-01 .2032E-01 .2181E-01 .2255E-01 .2405E-01 .2405E-01 .2555E-01 .2555E-01 .2555E-01 .2763E-01	.7812 .7768 .77768 .77701 .7701 .7700 .7711 .7721 .7752 .7758 .7815 .7828 .7828 .7854 .7854 .7866 .7866 .7868 .7867 .7888 .7888 .7889 .7896
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 289.1227 309.1227 319.1227 329.1227 339.1227 349.1227 349.1227 349.1227 369.1227 369.1227 479.1227 429.1227 429.1227 429.1227 429.1227 429.1227 439.1227 449.1227 449.1227 449.1227 449.1227 449.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.3548 1.1020 8983 .7338 6006 4926 4048 3334 .2751 .2274 .1884 .1564 .1300 .1084 .0905	.0132 .0175 .0230 .0394 .0511 .00661 .0851 .1093 .1398 .1782 .2264 .2867 .3621 .4560 .5725 .7169 .8953 1.1150 1.3851 1.3851 1.3851 1.3851 2.6148 3.2154 3.2154 3.9440 4.8256 5.8894	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.4218 13.7637 14.0376 14.3364 14.6300 14.9284 15.2314 15.5389 15.8508 16.1670 16.4873 17.4718 17.4718 17.4718 17.4718 17.498 17.4718 17.498 17.498 18.1461 18.4482 18.4883	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809 196.4111 198.9090 201.3765 203.8154 206.2278 208.6158 215.6591 217.9771 220.2869 222.5935 224.9031	CPR 6.1954 6.3547 6.6576 6.8211 6.9727 7.1223 7.5598 7.4152 7.5585 7.9752 8.1095 8.2416 8.4988 8.6238 8.7464 8.8667 8.9845 9.0999 9.2130 9.4319 9.5379	Y 1.1925 1.1868 1.1815 1.1765 1.1767 1.1635 1.1561 1.1552 1.1561 1.1528 1.1496 1.1439 1.1439 1.1438 1.1304 1.1230 1.1271 1.1271 1.1271 1.1271 1.1271 1.1272	1.1923 1.1866 1.1813 1.1763 1.1763 1.1673 1.1632 1.1553 1.1523 1.1523 1.1491 1.1460 1.1432 1.1432 1.1337 1.1336 1.13312 1.1292 1.1274 1.1257 1.1257 1.1261 1.1227 1.1214 1.1227 1.1214 1.1214 1.1214 1.1214 1.1195 1.1195	.999 .998 .9998 .9998 .9997 .9997 .9997 .9996 .9995 .9994 .9993 .9992 .9991 .9988 .9987 .9987 .9988 .9988	.1326E-04 .1381E-04 .1436E-04 .1542E-04 .1542E-04 .1546E-04 .1696E-04 .1746E-04 .1746E-04 .1842E-04 .1892E-04 .1939E-04 .2037E-04 .2037E-04 .2122E-04 .212E-04 .2255E-04 .2341E-04 .2381E-04 .2381E-04 .25510E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1512E-01 .1586E-01 .1660E-01 .1735E-01 .1809E-01 .2032E-01 .2032E-01 .2181E-01 .2255E-01 .2255E-01 .2405E-01 .2405E-01 .2405E-01 .2405E-01 .2555E-01 .2555E-01 .2630E-01 .2705E-01 .2705E-01	.7812 .7768 .7778 .7718 .7701 .7700 .7700 .7711 .7721 .7745 .7745 .7745 .7786 .7815 .7828 .7856 .7856 .7866 .7867 .7897 .7897 .7906 .7913
219.1227 229.1227 239.1227 249.1227 259.1227 279.1227 279.1227 289.1227 309.1227 319.1227 329.1227 339.1227 349.1227 369.1227 369.1227 369.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.3548 1.1020 8983 .7338 60006 4926 4048 3.334 2.751 2.274 1.1884 1.1900 1.084	.0132 .0175 .0230 .0394 .0511 .0861 .0851 .1093 .1398 .1782 .2264 .2864 .3621 .4560 .5725 .7169 .8953 .11150 1.3851 1.7162 .1211 2.6148 3.2154 4.8256 5.8894 7.1696	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.46797 12.9428 13.7213 13.4849 13.7637 14.0476 14.3364 14.3364 15.5389 15.8508 16.1670 16.4873 16.8116 17.1398 17.4718 17.8072 18.1461 18.4882 18.48833 19.1813	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 175.1058 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809 196.4111 198.9090 201.3765 203.8154 206.2278 208.6158 210.9818 213.3285 215.6591 227.228	CPR 6.19547 6.5121 6.6676 6.8211 6.6676 7.1223 7.4152 7.5585 7.6996 7.8385 7.9752 8.2416 8.3714 8.9845 8.7464 8.8667 8.9845 9.2130 9.3236 9.4319 9.5379 9.6416 9.7430	Y 1.1925 1.1868 1.1815 1.1765 1.1767 1.1635 1.1597 1.1561 1.1528 1.1496 1.1467 1.1438 1.1365 1.1343 1.1329 1.1229 1.1220 1.1220 1.1220 1.1220 1.1210	1.1923 1.1866 1.1813 1.1716 1.1673 1.1593 1.1593 1.1593 1.1593 1.1491 1.1432 1.1405 1.1379 1.1356 1.1333 1.1292 1.1274 1.1257 1.12241 1.1227 1.1224 1.1295 1.1295 1.1295 1.1296 1.1296 1.1296 1.1297 1.1214 1.1296	.999 .998 .998 .998 .9997 .9997 .9997 .9996 .9995 .9995 .9991 .9991 .9991 .9992 .9991 .9987 .9987 .9987 .9987 .9987 .9987	.1326E-04 .1381E-04 .1436E-04 .1542E-04 .1542E-04 .1542E-04 .1646E-04 .1746E-04 .1746E-04 .184E-04 .1892E-04 .2032E-04 .2032E-04 .2122E-04 .2167E-04 .212E-04 .2167E-04 .2215E-04 .2342E-04 .2342E-04 .2355E-04 .2363E-04 .2363E-04 .246E-04 .25510E-04 .25510E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1438E-01 .1512E-01 .1586E-01 .1586E-01 .1660E-01 .1735E-01 .1883E-01 .1883E-01 .205E-01 .205E-01 .2255E-01 .2405E-01 .2405E-01 .2405E-01 .2555E-01 .2555E-01 .2731E-01 .2731E-01 .2731E-01	.7812 .7768 .7768 .77768 .7701 .7701 .7704 .7711 .7721 .7745 .7745 .7758 .7801 .7815 .7828 .7842 .7866 .7866 .7866 .7877 .7888 .7890 .7913 .7920 .7920
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 279.1227 289.1227 309.1227 319.1227 329.1227 349.1227 349.1227 369.1227 369.1227 369.1227 409.1227 429.1227 429.1227 439.1227 439.1227 449.1227 449.1227 449.1227 449.1227 449.1227 449.1227 449.1227 469.1227 469.1227 469.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.1658 2.5514 2.0613 1.6693 1.3548 1.1020 .8983 .7338 6006 .4926 .4048 .3334 .2751 .2274 .1884 .1564 .1300 .1084 .1085 .0905 .0758	.0132 .0175 .0230 .0394 .0511 .00661 .0851 .1093 .1398 .1782 .2264 .2867 .3621 .4560 .5725 .7169 .8953 1.1150 1.3851 1.3851 1.3851 1.150 1.3851 2.6148 3.2154 3.2154 3.9440 4.8256 5.8894	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.4218 13.7637 14.0376 14.3364 14.6300 14.9284 15.2314 15.5389 15.8508 16.1670 16.4873 17.4718 17.4718 17.4718 17.4718 17.498 17.4718 17.498 17.498 18.1461 18.4482 18.4883	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809 196.4111 198.9090 201.3765 203.8154 206.2278 208.6158 215.6591 217.9771 220.2869 222.5935 224.9031	CPR 6.1954 6.3547 6.6576 6.8211 6.9727 7.1223 7.5598 7.4152 7.5585 7.9752 8.1095 8.2416 8.4988 8.6238 8.7464 8.8667 8.9845 9.0999 9.2130 9.4319 9.5379	Y 1.1925 1.1868 1.1815 1.1765 1.17719 1.1676 1.1635 1.1597 1.1561 1.1528 1.1496 1.1439 1.1365 1.1343 1.1388 1.1365 1.1343 1.1323 1.1323 1.1323 1.1324 1.1271 1.1271 1.1271 1.1271 1.1271 1.1271 1.1299 1.1209 1.1209 1.1209 1.1209 1.1209 1.1209 1.1209 1.1201 1.1955	1.1923 1.1866 1.1813 1.1763 1.1763 1.1673 1.1632 1.1553 1.1523 1.1523 1.1491 1.1460 1.1432 1.1432 1.1337 1.1336 1.13312 1.1292 1.1274 1.1257 1.1257 1.1261 1.1227 1.1214 1.1227 1.1214 1.1214 1.1214 1.1214 1.1195 1.1195	.999 .998 .9998 .9998 .9997 .9997 .9997 .9996 .9995 .9994 .9993 .9992 .9991 .9988 .9987 .9987 .9988 .9988	.1326E-04 .1381E-04 .1436E-04 .1542E-04 .1542E-04 .1546E-04 .1696E-04 .1746E-04 .1746E-04 .1842E-04 .1892E-04 .1939E-04 .2037E-04 .2037E-04 .2122E-04 .212E-04 .2255E-04 .2341E-04 .2381E-04 .2381E-04 .25510E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1512E-01 .1586E-01 .1660E-01 .1735E-01 .1809E-01 .2032E-01 .2032E-01 .2181E-01 .2255E-01 .2255E-01 .2405E-01 .2405E-01 .2405E-01 .2405E-01 .2555E-01 .2555E-01 .2630E-01 .2705E-01 .2705E-01	.7812 .7768 .7768 .7718 .7701 .7700 .7704 .7711 .7721 .7745 .7745 .7758 .7775 .7801 .7801 .7801 .7801 .7805 .7876 .7876 .7876 .7876 .7876 .7897 .7897 .7897 .7903 .7920 .7920
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 279.1227 289.1227 309.1227 319.1227 349.1227 349.1227 349.1227 369.1227 369.1227 369.1227 369.1227 499.1227 409.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.1658 2.5514 2.0613 1.3548 1.1020 8983 .7338 6006 4926 4048 3.334 2.751 2.274 1.1884 1.1084 0.905 0.0534 0.0535 0.0534 0.0535 0.0535 0.0535 0.0538 0.0538	.0132 .0175 .0230 .0302 .0394 .0511 .0661 .0851 .1398 .1782 .2264 .2867 .3621 .4560 .5725 .7169 .8953 1.1150 1.2154 3.2154 3.2154 3.9440 4.8256 5.8894 7.1696 8.7056 8.7056	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113 13.4849 13.7637 14.0476 14.3364 14.3364 15.5389 16.1670 16.4873 16.8116 17.1398 17.4718 17.8072 18.1461 17.1398 17.4718 17.8072 18.1461 17.1398 17.4718 17.8072	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809 196.4111 198.9090 201.3765 203.8154 206.2278 208.6158 210.9818 213.3285 215.6591 217.9771 220.2869 222.5935 224.9031 227.2228 229.5615 231.9297 234.3399	CPR 6.19547 6.35121 6.6676 6.8211 6.6676 7.1223 7.4152 7.5585 7.6996 7.8385 7.9752 8.2416 8.3714 8.3714 8.8667 8.9845 9.2130 9.3236 9.3236 9.4319 9.5379 9.6416 9.8423 9.9439 9.0345	Y 1.1925 1.1868 1.1815 1.1765 1.1767 1.1636 1.1597 1.1561 1.1528 1.1496 1.1439 1.1438 1.1343 1.1388 1.1343 1.1323 1.1304 1.1271 1.1271 1.1271 1.1271 1.1271 1.1270 1.1291 1.1290 1.1291	1.1923 1.1866 1.1813 1.1716 1.1673 1.1593 1.1593 1.1593 1.1593 1.1491 1.1492 1.1405 1.1379 1.1356 1.1379 1.1312 1.1274 1.1274 1.1257 1.1241 1.1274 1.1274 1.1287 1.1187 1.1185 1.1185 1.1187 1.1187 1.1187	.9998 .9998 .9998 .9998 .9997 .9997 .9997 .9996 .9995 .9994 .9992 .9992 .9992 .9992 .9988 .9987 .9988 .9987 .9988 .9987 .9988	.1326E-04 .1381E-04 .1436E-04 .1542E-04 .1542E-04 .1542E-04 .1646E-04 .1746E-04 .1746E-04 .1892E-04 .1892E-04 .1892E-04 .2032E-04 .2032E-04 .2167E-04 .2167E-04 .2218E-04 .2383E-04 .246E-04 .255E-04 .2383E-04 .246E-04 .255E-04 .255E-04 .255E-04 .2676E-04 .2598E-04 .2676E-04 .2634E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1512E-01 .153E-01 .153E-01 .1660E-01 .1735E-01 .1809E-01 .2032E-01 .2032E-01 .2106E-01 .2255E-01 .2405E-01 .2405E-01 .2405E-01 .2555E-01 .2405E-01 .2405E-01 .2555E-01 .2555E-01 .2405E-01 .2555E-01 .2555E-01 .2555E-01 .2405E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01	.7812 .7768 .7768 .7718 .7701 .7700 .7701 .7711 .7711 .7712 .7745 .7745 .7758 .7758 .7758 .7801 .7815 .7828 .7854 .7866 .7877 .7866 .7877 .7866 .7877 .7866 .7877 .7913 .7920 .7931 .7935 .7938
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 279.1227 289.1227 309.1227 319.1227 329.1227 349.1227 349.1227 369.1227 369.1227 409.1227 409.1227 429.1227 429.1227 439.1227 439.1227 439.1227 439.1227 459.1227 469.1227 469.1227 469.1227 469.1227 469.1227 469.1227 469.1227 509.1227 509.1227 509.1227 509.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.3548 1.1020 .8983 .7338 .6006 .4926 .4048 .3334 .2751 .1884 .1564 .1300 .1084 .0905 .0905 .0758 .0634 .0635 .0758 .0635 .0636 .0	.0132 .0175 .0230 .0394 .0511 .0661 .0851 .1093 .1398 .1782 .2264 .4560 .5725 .7169 .8953 1.1150 1.3851 1.3851 1.1150 1.3851 1.3851 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.3851 1.150 1.150 1.3851 1.150 1	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.67797 12.9428 13.7637 14.0476 14.6300 14.9284 15.5389 16.1670 16.4873 16.8116 17.1398 17.4718 17.4718 17.4718 17.4882 18.4882 18.48833 19.1813 19.1813 19.1813	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805 180.6805 181.3166 193.8809 196.4111 198.9090 201.3765 203.8154 206.2278 208.6158 215.6591 217.9771 220.2869 222.5935 224.5931 227.2228 229.5615 231.9297 234.3399 236.8072	CPR 6.1954 6.3547 6.3547 6.6576 6.8211 6.9727 7.1223 7.2698 7.4152 7.5585 7.6996 7.8385 8.1095 8.1095 8.2416 8.4988 8.6238 8.7464 8.8667 9.0999 9.2136 9.4319 9.5379 9.4319 9.5379 9.4319 9.5379 9.4319 9.5379 9.4319 9.5379	Y 1.1925 1.1868 1.1815 1.1765 1.1767 1.1635 1.1561 1.1552 1.1552 1.1496 1.1439 1.1439 1.1433 1.1304 1.1271 1.1271 1.1271 1.1271 1.1271 1.1290 1.1219 1.1291	1.1923 1.1866 1.1813 1.1763 1.1673 1.1673 1.1557 1.1523 1.1557 1.1523 1.1491 1.1400 1.1432 1.1405 1.1405 1.1333 1.1312 1.1292 1.1257 1.1221 1.1227 1.1221 1.1227 1.1214 1.1227 1.1214 1.1214 1.1205 1.1185 1.1185 1.1187 1.1187 1.1187 1.1187 1.1193	.9998 .9998 .9998 .9998 .9997 .9997 .9997 .9996 .9995 .9994 .9992 .9992 .9990 .9989 .9987 .9987 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9999 .9998 .9999 .9998 .9999 .9999 .9999 .9999 .9999 .9998 .9999	.1326E-04 .1381E-04 .1430E-04 .1542E-04 .1542E-04 .1542E-04 .1546E-04 .1746E-04 .1746E-04 .1795E-04 .1844E-04 .1892E-04 .2032E-04 .2032E-04 .2167E-04 .2112E-04 .2211E-04 .2211E-04 .2211E-04 .2211E-04 .2381E-04 .2381E-04 .2426E-04 .251E-04 .251E-04 .251E-04 .251E-04 .251E-04 .251E-04 .251E-04 .251E-04 .251E-04 .251E-04 .251E-04 .251E-04 .251E-04 .251E-04 .251E-04 .251E-04 .270E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1512E-01 .1586E-01 .1660E-01 .1735E-01 .1883E-01 .2032E-01 .2032E-01 .2255E-01 .2480E-01 .2480E-01 .2480E-01 .2555E-01 .2555E-01 .2705E-01 .2705E-01 .2705E-01 .2705E-01 .2705E-01 .2705E-01 .2705E-01 .2705E-01 .3089E-01 .3089E-01 .3089E-01 .3089E-01	.7812 .7768 .7778 .7718 .7700 .7700 .7700 .7711 .7721 .7745 .7745 .7745 .7745 .7786 .7815 .7854 .7856 .7857 .7866 .7877 .7888 .7877 .7888 .7877 .7888 .7897 .7920 .7920 .7931 .7935 .7935 .7935 .7935
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 289.1227 399.1227 319.1227 319.1227 329.1227 349.1227 349.1227 369.1227 369.1227 369.1227 409.1227 409.1227 409.1227 409.1227 409.1227 409.1227 409.1227 409.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.1658 2.5514 2.0613 1.3548 1.1020 .8983 .7338 .6006 .4926 .4048 .3334 .2751 .2274 .1884 .1564 .1300 .1084 .095 .0534 .0450 .0322 .0273 .0233	.0132 .0175 .0230 .0302 .0394 .0511 .0661 .1093 .1398 .1782 .2264 .2867 .3621 .4560 .5725 .7169 .8953 1.1150 1.3851 1.7162 2.1211 2.6148 3.2154 3.9440 4.8256 5.8894 7.1696 8.7056 10.55435 12.7358 15.3429 18.4336 22.0857	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113 13.4849 13.7637 14.0476 14.3364 14.6300 14.9284 15.2314 15.5389 16.1670 16.4873 16.4873 16.4873 17.4718 17.48072 18.1461 17.1398 17.4718 17.48072 18.1461 17.1398 17.4718 17.8072 18.1461 17.1398 17.4718 17.8072 18.1461 17.1398 17.4718 17.8072 18.1461 17.1398 17.4718 17.8077 20.9577 20.9577 20.9577	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 175.1058 177.9165 180.6805 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809 201.3765 203.8154 206.2278 208.6158 213.3285 215.6591 217.9771 220.2869 222.5935 224.9031 227.2228 229.5615 231.9297 234.3399 236.8072 239.3494 241.9877	CPR 6.1954 6.3547 6.5121 6.6676 6.8211 6.9727 7.1223 7.4152 7.45585 7.6996 7.8385 7.4558 8.2416 8.4988 8.7464 8.8667 8.9845 9.0999 9.3236 9.4319 9.5379 9.6416 9.7430 9.7430 9.7430 9.7430 9.7430 9.7430 9.7430 9.7430 9.7430	Y 1.1925 1.1868 1.1815 1.1765 1.1779 1.1676 1.1635 1.1597 1.1561 1.1528 1.1496 1.1443 1.1365 1.1343 1.1388 1.1365 1.1343 1.1388 1.1323 1.1323 1.1323 1.1323 1.1323 1.1323 1.1323 1.1323 1.1323 1.1323 1.1323 1.1324 1.1271 1.1287 1.1299 1.1299 1.1299 1.1299 1.1299 1.1291 1.1185 1.1185 1.1185 1.1185 1.1185 1.1185	1.1923 1.1866 1.1813 1.1716 1.1632 1.15537 1.15537 1.1523 1.1491 1.1432 1.1432 1.1432 1.1437 1.1356 1.1333 1.1312 1.1274 1.1274 1.1277 1.1241 1.1227 1.1241 1.1295 1.1189	.9998 .9998 .9998 .9998 .9997 .9997 .9997 .9996 .9995 .9992 .9992 .9992 .9988 .9987 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9999 .9998 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988	.1326E-04 .1381E-04 .1436E-04 .1490E-04 .1594E-04 .1594E-04 .1594E-04 .1696E-04 .1795E-04 .1844E-04 .1892E-04 .1892E-04 .2032E-04 .2032E-04 .2122E-04 .2167E-04 .2215E-04 .2255E-04 .2381E-04 .2381E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .259E-04 .269E-04 .269E-04 .270E-04 .270E-04 .270E-04 .284E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1512E-01 .1586E-01 .1586E-01 .1660E-01 .1735E-01 .1883E-01 .1883E-01 .2932E-01 .2106E-01 .2255E-01 .2255E-01 .2480E-01 .2480E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2705E-01 .2705E-01 .2705E-01 .2705E-01 .3089E-01 .3089E-01 .3246E-01 .3246E-01 .3246E-01 .3246E-01	.7812 .7768 .7768 .7718 .7701 .7700 .77701 .77711 .77721 .77758 .77758 .7758 .7758 .7801 .7801 .7805 .7856 .7856 .7858 .7897 .7866 .7878 .7897 .7913 .7926 .7931 .7941 .7946
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 289.1227 309.1227 319.1227 329.1227 349.1227 349.1227 349.1227 349.1227 369.1227 409.1227 409.1227 429.1227 429.1227 429.1227 429.1227 429.1227 429.1227 429.1227 429.1227 429.1227 429.1227 429.1227 429.1227 429.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.3548 1.1020 .8983 .7338 .6006 .4926 .4048 .3334 .2751 .2274 .1884 .1564 .1300 .1084 .0905 .0035 .0758 .0035 .0758 .0032 .0273 .0233 .0293	.0132 .0175 .0230 .0394 .0511 .0661 .0851 .1093 .1398 .1782 .2264 .2867 .3621 .4560 .8953 1.1150 1.3851 1.3	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113 13.4849 13.7637 14.0364 14.6300 14.9284 15.2314 15.5389 15.8508 16.1670 16.4873 17.4718 17.4718 17.4718 17.4918	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 177.9165 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809 196.4111 198.9090 201.3765 203.8154 206.2278 208.6158 215.6591 227.2228 228.5935 224.9031 227.2228 229.5615 231.9297 234.3399 236.8072 239.3494 241.9877 244.7469	CPR 6.1954 6.3547 6.6576 6.8211 6.6676 7.1223 7.2698 7.4152 7.56996 7.8385 8.1095 8.2416 8.4988 8.6238 8.7464 8.8667 8.9845 9.0999 9.2130 9.4319 9.537 9.6416 9.7430 9.7430 9.7430 9.7430 9.7430 9.7430 9.7430	Y 1.1925 1.1868 1.1815 1.1765 1.1767 1.1636 1.1561 1.1561 1.1528 1.1496 1.1439 1.1439 1.1433 1.1304 1.1230 1.1271	1.1923 1.1866 1.1813 1.1763 1.1673 1.1673 1.15597 1.1523 1.1523 1.1491 1.1432 1.1405 1.1432 1.1405 1.1333 1.1312 1.1274 1.1274 1.1227 1.1214 1.1227 1.1185 1.1189 1.11205 1.11225 1.12245 1.1245 1.1245	.9998 .9998 .9998 .9998 .9997 .9997 .9997 .9996 .9995 .9994 .9993 .9992 .9991 .9987 .9987 .9988	.1326E-04 .1381E-04 .1436E-04 .1542E-04 .1542E-04 .1542E-04 .1546E-04 .1746E-04 .1746E-04 .1795E-04 .1844E-04 .1892E-04 .2032E-04 .2032E-04 .2122E-04 .2122E-04 .2121E-04 .221E-04 .221E-04 .238E-04 .238E-04 .238E-04 .255E-04 .255E-04 .255E-04 .255E-04 .255E-04 .276E-04 .276E-04 .276E-04 .276E-04 .276E-04 .2846E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1512E-01 .1586E-01 .1660E-01 .1735E-01 .1883E-01 .2032E-01 .2032E-01 .2255E-01 .2255E-01 .2480E-01 .2480E-01 .2480E-01 .2555E-01 .2480E-01 .2555E-01 .2605E-01 .2755E-01 .2755E-01 .2755E-01 .2755E-01 .2755E-01 .2755E-01 .3081E-01 .3081E-01 .3081E-01 .3082E-01 .3082E-01 .3246E-01 .33246E-01 .33246E-01 .3488E-01	.7812 .7768 .77738 .7718 .7700 .7700 .7711 .7721 .7745 .7745 .7745 .7786 .7815 .7828 .7854 .7866 .7867 .7866 .7866 .7876 .7897 .7926 .7935 .7935 .7944 .7944 .7947
219.1227 229.1227 239.1227 249.1227 259.1227 269.1227 289.1227 399.1227 319.1227 319.1227 329.1227 349.1227 349.1227 369.1227 369.1227 369.1227 409.1227 409.1227 409.1227 409.1227 409.1227 409.1227 409.1227 409.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227 509.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.3548 1.1020 8983 -7338 60006 4926 4048 3334 2751 2274 11884 1.1000 1.3	.0132 .0175 .0230 .0302 .0394 .0511 .0661 .0851 .1398 .1782 .2264 .2867 .3621 .4560 .5725 .7169 .8953 1.1150 1.3851 1.7162 2.1211 2.6148 3.2154 3.2154 3.2154 6.7056 6.7056 8.705	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113 13.4849 13.7637 14.0476 14.3364 14.6300 14.9284 15.2314 15.5389 16.1670 16.4873 16.4873 16.4873 17.4718 17.48072 18.1461 17.1398 17.4718 17.48072 18.1461 17.1398 17.4718 17.8072 18.1461 17.1398 17.4718 17.8072 18.1461 17.1398 17.4718 17.8072 18.1461 17.1398 17.4718 17.8077 20.9577 20.9577 20.9577	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 175.1058 177.9165 180.6805 180.6805 183.4003 186.0782 188.7163 191.3166 193.8809 201.3765 203.8154 206.2278 208.6158 213.3285 215.6591 217.9771 220.2869 222.5935 224.9031 227.2228 229.5615 231.9297 234.3399 236.8072 239.3494 241.9877	CPR 6.1954 6.3547 6.5121 6.6676 6.8211 6.9727 7.1223 7.4152 7.45585 7.6996 7.8385 7.4558 8.2416 8.4988 8.7464 8.8667 8.9845 9.0999 9.3236 9.4319 9.5379 9.6416 9.7430 9.7430 9.7430 9.7430 9.7430 9.7430 9.7430 9.7430 9.7430	Y 1.1925 1.1868 1.1815 1.1765 1.1779 1.1676 1.1635 1.1597 1.1561 1.1528 1.1496 1.1443 1.1365 1.1343 1.1388 1.1365 1.1343 1.1388 1.1323 1.1323 1.1323 1.1323 1.1323 1.1323 1.1323 1.1323 1.1323 1.1323 1.1323 1.1324 1.1271 1.1287 1.1299 1.1299 1.1299 1.1299 1.1299 1.1291 1.1185 1.1185 1.1185 1.1185 1.1185 1.1185	1.1923 1.1866 1.1813 1.1763 1.1673 1.1673 1.15597 1.1523 1.1523 1.1491 1.1432 1.1400 1.1432 1.1407 1.1356 1.1312 1.1274 1.1277 1.1241 1.1227 1.1241 1.1227 1.1241 1.1204 1.1189 1	.9998 .9998 .9998 .9998 .9997 .9997 .9997 .9996 .9995 .9994 .9993 .9992 .9991 .9987 .9987 .9986 .99887 .9988 .99887 .99881 .9998 .999887 .99881 .999887 .99981 .999	.1326E-04 .1381E-04 .1436E-04 .1542E-04 .1542E-04 .1542E-04 .1646E-04 .1746E-04 .1746E-04 .1846E-04 .1846E-04 .1892E-04 .2032E-04 .2032E-04 .2122E-04 .2122E-04 .2157E-04 .2255E-04 .2255E-04 .2341E-04 .2341E-04 .2551E-04	.9935E-02 .1068E-01 .1142E-01 .1216E-01 .1290E-01 .1364E-01 .1512E-01 .1586E-01 .1586E-01 .1660E-01 .1735E-01 .1883E-01 .1883E-01 .2932E-01 .2106E-01 .2255E-01 .2255E-01 .2480E-01 .2480E-01 .2555E-01 .2555E-01 .2555E-01 .2555E-01 .2705E-01 .2705E-01 .2705E-01 .2705E-01 .3089E-01 .3089E-01 .3246E-01 .3246E-01 .3246E-01 .3246E-01	.7812 .7768 .7768 .7718 .7701 .7700 .77701 .77711 .77721 .77758 .77758 .7758 .7758 .7801 .7801 .7805 .7856 .7856 .7858 .7897 .7866 .7878 .7897 .7913 .7926 .7931 .7941 .7946
219.1227 229.1227 239.1227 249.1227 259.1227 279.1227 279.1227 239.1227 309.1227 319.1227 329.1227 339.1227 349.1227 349.1227 349.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 499.1227 599.1227 599.1227 599.1227 599.1227 599.1227 599.1227 599.1227 599.1227 599.1227 599.1227	15.4428 12.2038 9.6741 7.6935 6.1347 4.9068 3.9368 3.1658 2.5514 2.0613 1.3548 1.1020 .8983 .7338 .6006 .4926 .4048 .3334 .2751 .2274 .1884 .1300 .1084 .0905 .0	.0132 .0175 .0230 .0394 .0511 .0661 .0851 .1093 .1398 .1782 .2264 .2867 .3621 .4560 .8953 1.1150 1.3851 1.3	11.2169 11.4465 11.6818 11.9229 12.1697 12.4219 12.6797 12.9428 13.2113 13.4849 13.7637 14.0476 14.93864 14.6300 14.9284 15.5389 15.8508 16.1670 16.4873 16.8116 17.1398 17.4718 17.8072 18.4882 19.1813 19.5319 17.8850 20.2403 20.5977 21.3179 21.6804	a 157.0928 160.2499 163.3394 166.3660 169.3336 172.2458 175.1058 175.1058 183.4003 186.0782 188.7163 191.3166 193.8809 196.4111 198.9090 201.3765 203.8154 208.6158 215.6591 217.9771 220.2869 222.5935 224.9031 227.2228 229.5615 231.9297 234.3399 236.8072 239.3494 241.9877 244.7469 247.7658	CPR 6.1954 6.39547 6.65121 6.6676 6.8211 6.9727 7.1223 7.2698 7.4152 7.5585 7.6996 7.8385 7.9752 8.2416 8.37114 8.8667 8.9845 9.8423 9.8423 9.8423 9.8423 9.8423 10.0345 10.1277 10.3085 10.3085	Y 1.1925 1.1868 1.1815 1.1765 1.1767 1.1635 1.1597 1.1561 1.1528 1.1496 1.1439 1.1433 1.1388 1.1365 1.1343 1.1323 1.1323 1.1324 1.1271 1.1271 1.1271 1.1271 1.1291 1.1291 1.1295 1.1195 1.1185 1.1185 1.1185 1.1187 1.1187 1.1187 1.1197 1.1197 1.1197	1.1923 1.1866 1.1813 1.1716 1.1673 1.15537 1.15537 1.1553 1.1491 1.1432 1.1432 1.1432 1.1435 1.1379 1.1379 1.1379 1.1374 1.1274 1.1274 1.1227 1.1227 1.1214 1.1227 1.1214 1.1204 1.1185 1.1187	.9998 .9998 .9998 .9998 .9997 .9997 .9997 .9996 .9995 .9994 .9993 .9992 .9991 .9987 .9987 .9986 .99887 .9988 .99887 .99881 .9998 .999887 .99881 .999887 .99981 .999	.1326E-04 .1381E-04 .1430E-04 .1490E-04 .1594E-04 .1594E-04 .1594E-04 .1795E-04 .1795E-04 .1844E-04 .1892E-04 .239E-04 .2332E-04 .2122E-04 .2122E-04 .215E-04 .225E-04 .2341E-04 .2341E-04 .235E-04 .246E-04 .255E-04 .255E-04 .255E-04 .255E-04 .255E-04 .255E-04 .259E-04	.9935E-02 .1068E-01 .1142E-01 .1246E-01 .1290E-01 .1364E-01 .1512E-01 .1586E-01 .1586E-01 .1735E-01 .1883E-01 .1883E-01 .2032E-01 .2032E-01 .2181E-01 .2255E-01 .2405E-01 .2405E-01 .2405E-01 .2555E-01 .2405E-01 .2405E-01 .2555E-01 .2405E-01 .2405E-01 .2405E-01 .2405E-01 .2405E-01 .2555E-01 .2405E-01 .2405E-01 .2405E-01 .2405E-01 .2405E-01 .2405E-01 .2555E-01 .2405E-01 .2555E-01 .2630E-01 .3011E-01 .3026E-01 .3326E-01 .3406E-01 .3406E-01 .3406E-01 .3406E-01	.7812 .7768 .77768 .77701 .77001 .77004 .77711 .77721 .77721 .77758 .77801 .7815 .7815 .7828 .7854 .7866 .7866 .7866 .78906 .7913 .7920 .7920 .7920 .7935 .7935 .7944 .7946 .7948

TABLE IV.- Continued

S /R=34.0000											
T	٧	p	h∕RT	а	c _p R	γ	Υ _e	Z	μ	k	$^{N}_{Pr}$
240.5372	15.4425	.0145	11.7158	163.7790	6.5336	1.1807	1.1806	.9999	.1444E-04	.1152E-01	.7734
250.5372 260.5372	12.2863 9.8030	.0190	11.9578	166.7983	6.6887	1.1758	1.1756	.9999 .9999	.1497E-04	.1226E-01 .1300E-01	.7715 .7704
270.5372	7.8444	.0248 .0321	12.2053 12.4584	169.7592 172.6654	6.8419 6.9931	1.1712 1.1669	1.1667	.9998	.1602E-04	.1374E-01	.7704
280.5372	6.2929	.0416	12.7170	175.5200	7.1423	1.1629	1.1626	.9998	·1653E-04	.1448E-01	.7700
290.5372	5.0615	.0535	12.9810	178.3260	7.2894	1.1591	1.1588	.9998	.1703E-04	.1523E-01	.7704
300.5372 310.5372	4.0810 3.2982	.0686 .0878	13.2503	181.0858	7.4344	1.1555	1.1553 1.1519	.9998 .9997	.1753E-04 .1802E-04	•1597E-01	•7712
320.5372	2.6717	.1118	13.5248 13.8045	183.8020 186.4768	7.5772 7.7178	1.1522	1.1487	.9997	.1851E-04	.1671E-01 .1745E-01	.7721 .7733
330.5372	2.1689	.1420	14.0892	189.1123	7.8562	1.1461	1.1457	.9997	.1898E-04	.1819E-01	.7745
340.5372	1.7646	.1799	14.3789	191.7103	7.9923	1.1433	1.1429	•9996	.1945E-04	.1893E-01	.7759
350.5372 360.5372	1.4387 1.1754	•2271 •2859	14.6734 14.9727	194.2728 196.8013	8.1260 8.2574	1.1407 1.1382	1.1402 1.1377	•9996 •9995	.1992E-04 .2038E-04	.1967E-01	.7773 .7787
370.5372	.9622	• 2659 • 3589	15.2767	199.2978	8.3865	1.1359	1.1353	.9995	.2083E-04	.2042E-01 .2116E-01	.7801
380.5372	.7893	.4493	15.5853	- 201.7637	8.5131	1.1337	1.1330	.9994	.2128E-04	.2190E-01	.7815
390.5372	.6487	.5610	15.8982	204.2008	8.6372	1.1316	1.1309	.9994	.2173E-04	.2265E-01	.7828
400.5372	•5342 •4407	.6986	16.2156	206.6107 208.9953	8.7589 8.8781	1.1297 1.1279	1.1289	. •9993	.2216E-04 .2260E-04	.2339E-01 .2413E-01	.7841 .7853
410.5372 420.5372	.3643	.8678 1.0753	16.5371 16.8628	211.3563	8.9948	1.1262	1.1253	.9992	.2303E-04	.2488E-01	.7865
430.5372	.3018	1.3291	17.1924	213.6959	9.1089	1.1246	1.1237	.9992	.2345E-04	.2563E-01	.7875
440.5372	. 2504	1.6388	17.5258	216.0162	9.2205	1.1231	1.1222	•9992	.2388E-04	.2638E-01	.7885
450.5372	.2002	2.0157	17.8630	218.3196	9.3295	1.1218	1.1208	.9991	.2429E-04	.2713E-01	.7893
460 .9972 470 . 5372	•1734 •1448	2.4734 3.0278	18.2037 18.5478	220 .6097 222 . 88 92	9.4360 9.5399	1.1206 1.1194	1.1196	•9991 •9992	.2471E-04 .2512E-04	.2788E-01 .2863E-01	.7901 .7907
480.5372	.1211	3.6975	18.8952	225.1623	9.6413	1.1184	1.1176	9992	.2553E-04	.2939E-01	.7912
490.5372	.1015	4.5045	19.2457	227.4335	9.7401	1.1176	1.1169	.9994	.2594E-04	.3015E-01	.7917
500.5372	.0852	5.4745	19.5990	229.7083	9.8365	1.1168	1.1164	.9996	.2634E-04	.3091E-01	.7920
510.5372 520.5372	.0717 .0605	6.6374 8.0276	19.9552 20.3138	231.9933 234.2962	9.9303 10.0217	1.1162 1.1157	1.1161	.9998 1.0002	.2675E-04	.3168E-01 .3245E-01	•7922 •7923
530.5372	.0511	9.6852	20.6749	236.6262	10.1108	1.1153	1.1164	1.0007	.2756E-04	.3322E-01	.7923
540.5372	.0433	11.6559	21.0382	238.9941	10.1974	1.1151	1.1170	1.0014	.2796E-04	.3401E-01	.7922
550.5372	•0368	13.9922	21.4035	241.4129	10.2819	1.1151	1.1180	1.0023	.2837E-04	.3480E-01	.7920
560.5372 570.5372	.0313 .0267	16.7536	21.7706 22.1393	243.8977 246.4663	10.3641 10.4441	1.1152 1.1154	1.1196 1.1216	1.0034	.2878E-04 .2920E-04	.3559E-01 .3640E-01	.7917 .7914
580.5372	.0229	23.8304	22.5096	249.1395	10.5221	1.1159	1.1244	1.0066	.2962E-04	.3722E-01	.7910
588.8889	.0201	27.5169	22.8199	251.4691	10.5857	1.1164	1.1272	1.0084	.2997E-04	.3791E-01	.7906
					/R=34.5000						
-	.,	_	h∠RT	a		Y	~	Z	μ	k	N _{Pr}
T	٧	p			c _p /R		Ϋ́e		•		
262 .5792 272 . 5792	15.4476 12.3644	.0158 .0206	12.2567 12.5110	170.3635 173.2599	6.872 5 7.0232	1.1702	1.1701 1.1659	•9999 •9999	.1560E-04 .1612E-04	.1315E-01 .1389E-01	•7702 •7699
282.5792	9.9241	.0265	12.7708	176 • 1055	7.1719	1.1620	1.1619	9999	.1663E-04	.1463E-01	.7700
292.5792	7.9860	.0342	13.0359	178.9030	7.3185	1.1583	1.1581	.9999	.1714E-04	•1538E-01	.7705
302.5792	6.4420	.0438	13.3063	181.6552	7.4630	1.1548	1.1546	.9999 .9998	.1763E-04	.1612E-01	.7713
312.5792 322.5792	5.2086 4.2209	.0559 .0712	13.5820 13.8628	184.3643 187.0325	7.6052 7.7453	1.1514	1.1513	.9998	.1812E-04 .1860E-04	.1686E-01 .1760E-01	.7723 .7735
332.5792	3.4280	.0904	14.1486	189.6619	7.8830	1.1454	1.1451	9998	.1908E-04	.1834E-01	.7747
342.5792	2.7900	.1145	14.4394	192.2544	8.0185	1.1426	1.1423	.9998	.1955E-04	.1908E-01	.7761
352.5792	2.2755	.1444	14.7351	194.8116	8.1516 8.2823	1.1400	1.1397 1.1372	•9997 •9997	.2001E-04 .2047E-04	.1982E-01 .2056E-01	.7775 .7789
362.5792 372.5792	1.8597 1.5229	.1817 .2280	15.0355 15.3407	197.3354 199.8272	8.4106	1.1375 1.1352	1.1348	9997	.2092E-04	.2131E-01	.7803
382.5792	1.2496	.2854	15.6504	202.2887	8.5364	1.1330	1.1326	.9996	.2137E-04	.2205E-01	.7817
392.5792	1.0273	.3562	15.9646	204.7213	8.6597	1.1309	1.1305	•9996	.2181E-04	.2279E-01	.7830
402.5792	.8461 .6983	.4434	16.2831 16.6059	207.1266	8.7805 8.8988	1.1290	1.1285	.9996 .9996	.2225E-04 .2268E-04	.2353E-01 .2428E-01	.7842 .7854
412.5792 422.5792	.5773	.5506 .6821	16.9329	209.5060 211.8611	9.0144	1.1254	1.1249	.9995	.2311E-04	.2502E-01	.7865
432.5798	.4782	.8429	17.2638	214.1936	9.1274	1.1238	1.1232	.9995	.2353E-04	.2577E-01	.7875
442.5792	.3769	1.0392	17.5987	216.5052	9.2378	1.1223	1.1217	.9995	.2395E-04	.2651E-01	.7884
452.5 792 462.5 792	.3306 .2749	1.2781 1.5682	17.9374 18.2797	218.7979	9.3455 9.4505	1.12 0 9 1.1196	1.1203	.9995 .9995	.2436E-04 .2478E-04	.2726E-01 .2800E-01	•7892 •7899
472.5792	.2294	1.9198	18.6255	221.0736 223.3349	9.5528	1.1196	1.1170	.9995	.2478E-04	.2875E-01	.7899 .7904
482.5792	.1918	2.3447	18.9747	225.5844	9.6524	1.1172	1.1167	.9995	.2559E-04	.2950E-01	.7908
492.5792	.1607	2.8571	19.3271	227.8252	9.7492	1.1162	1.1158	•9996	.2599E-04	.3026E-01	.7911
502.5792 512.5792	•1349 •1134	3.4735	19.6826	230.0610	9.8434	1.1153	1.1151	.9997 .9999	.2639E-04 .2679E-04	.3101E-01	•7913 7014
522.5792	•1134 •0956	4.2132 5.0986	20.0410 20.4022	232.2959 234.5349	9.9348 10.0236	1.1145 1.1138	1.1145	1.0001	.2718E-04	•3177E-01 •3253E-01	.7914 .7913
532.5792	.0807	6.1557	20.7660	236.7838	10.1096	1.1132	1.1138	1.0005	.2757E-04	.3329E-01	.7911
542.5792 55 2.5792	.0683	7.4147	21.1322	239.0494	10.1930 10.2737	1.1128	1.1139	1.0009	.2797E-04	.3406E-01 .3483E-01	.7908
							1.1142	1.0014	.2836E-04		.7903
	.0579	8.9101 10.6817	21.5007	241.3398							
562.5792 572.5792	.0579 .0492 .0419	10.6817	21.5007 21.8713 22.2438	243.6643	10.3518	1.1122	1.1148	1.0021	.2875E-04	.3560E-01	.7898 .7891
562.5792	.0492		21.8713					1.0021			.7898

TABLE IV .- Continued

					s/R=35.000	0				_	
T	٧	р	h∕RT	a	c _p /R	γ	Υe	Z	μ	k	N _{Pr}
. 285.2286	15.4476	.0172	12.8406	176.8566	7.2106	1.1610	1.1609	.9999	.1677E-04	.1483E-01	.7701
295.2286 305.2286	12.4383 10.0395	.0221 .0283	13.1072 13.3791	179.6427 182.3840	7.3566 7.5004	1.1573 1.1538	1.1572 1.1537	.9999	.1727E-04 .1776E-04	.1557E-01 .1631E-01	.7707 .7715
315.2286	8.1221	.0362	13.6562	185.0830	7.6420	1.1505	1.1504	9999	.1825E-04	.1705E-01	.7726
325.2286	6.5857	.0460	13.9384	187.7418	7.7814	1.1475	1.1473	9999	.1873E-04	.1779E-01	.7738
335.2286	5.3515	.0584	14.2256	190.3623	7.9184	1.1446	1.1444	.9999	.1920E-04	.1853E-01	.7751
345.2286	4.3578	.0739	14.5178	192.9464	8.0532	1.1418	1.1417	.9999	.1967E-04	.1928E-01	.7764
355.2286	3.5560 2.9076	.0931	14.8148 15.1166	195.4958 198.0121	8.1855 8.3155	1.1392 1.1368	1.1391	.9998 .9998	.2013E-04 .2059E-04	.2002E-01	.7778
365.2286 375.2286	2.3821	.1171 .1468	15.4231	200.4968	8.4430	1.1345	1.1343	.9998	.2104E-04	,2076E-01 .2150E-01	.7792 .7806
385.2286	1.9554	.1836	15.7342	202.9514	8.5680	1.1323	1.1321	.9998	.2149E-04	.2224E-01	.7820
395.2286	1.6082	.2291	16.0497	205.3773	8.6904	1.1302	1.1300	.9998	.2193E-04	.2298E-01	.7832
405.2286	1.3252	-2850	16.3696	207.7759	8.8103	1.1283	1.1280	.9997	.2236E-04	.2372E-01	. 7845
415.2286 425.2286	1.0940 .9048	.3538 .4380	16.6938 17.0221	210.1485 212.4966	8.9275 9.0422	1.1265 1.1247	1.1261	.9997 .9997	.2279E-04	.2447E-01 .2521E-01	.7856 .7867
435.2286	.7498	.5410	17.3545	214.8214	9.1541	1.1231	1.1227	9997	.2364E-04	.2595E-01	.7876
445.2286	.6224	.6667	17.6908	217.1244	9.2633	1.1215	1.1212	.9997	.2405E-04	.26706-01	.7885
455.2286	.5176	.8197	18.0309	219.4072	9.3698	1.1201	1.1197	.9997	.2447E-04	. 2744E- 0 1	.7892
465.2286	.4313	1.0055	18.3748	221.6714	9.4735	1.1108	1.1184	.9997	.2487E-04	.20196-01	.7898
475.2286	.3600 .3010	1.2305 1.5026	18.7221 19.0729	223.9188 226.1513	9.5743 9.6724	1.1175	1.1172	.9997 .9997	.2528E-04 .2568E-04	.2093E-01 .2968E-01	.7903 .7906
48 5.2286 495.2286	•2522	1.8307	19.4271	228.3712	9.7676	1.1152	1.1150	9998	.2608E-04	.3043E-01	.7908
505.2286	.2116	2.2254	19.7843	230.5810	9.8600	1.1142	1.1141	.9999	.2647E-04	.3118E-01	.7909
515.2286	.1780	2.6993	20.1447	232.7835	9.9495	1.1133	1.1133	1.0000	.2686E-04	.3193E-01	.7909
525.2286	.1499	3.2668	20.5079	234.9820	10.0361	1.1125	1.1127	1.0001	.2725E-04	.3268E-01	.7907
535.2286 545.2286	.1265 .1070	3.9448 4.7530	20.8738 21.2423	237.1803 239.3829	10.1198 10.2006	1.1118	1.1122	1.0005	.2764E-04 .2802E-04	.3343E+01 .3419E-01	.7903 .7899
555.2286	.0907	5.7139	21.6132	241.5949	10.2786	1.1106	1.1117	1.0009	.2841E-04	.3495E-01	.7892
565.2286	.0770	6.8536	21.9864	243.8224	10.3536	1.1102	1.1118	1.0014	.2879E-04	.3571E-01	.7885
575.2286	.0655	8.2020	22.3617	246.0723	10.4258	1.1099	1.1121	1.0019	-2917E-04	.3648E-01	.7876
585.2286 588.8889	•0559 •0527	9.7932 10.4454	22.7389 22.8775	248.3527 249.1971	10.4952 10.5199	1.1097 1.1096	1.1127	1.0026	.2956E-04 .2970E-04	.3725E-01 .3754E-01	.7866 .7862
						•					
				s	/R=35.5000)					
т	٧	р	h∕RT	a a		y	Υ _e .	Z	μ	k	N _{Pr}
T 308.5009	15.4476	.0186	13.4693	a 183.2762	c /R p 7.5467	γ 1.1527	1.1526	.9999	•1792E-04	.1655E-01	.7718
308.5009 318.5009	15.4476 12.5032	.0186 .0237	13.4693	a 183.2762 185.9624	c/R p 7.5467 7.6875	¥ 1.1527 1.1495	1.1526	.9999 .9999	.1792E-04 .1841E-04	.1655E-01 .1729E-01	.7718 .7729
308.5009 318.5009 328.5009	15.4476 12.5032 10.1451	.0186 .0237 .0302	13.4693 13.7481 14.0320	a 183.2762 185.9624 188.6091	C R P 7.5467 7.6875 7.8261	¥ 1.1527 1.1495 1.1465	1.1526 1.1494 1.1464	.9999 .9999 .9999	.1792E-04 .1841E-04 .1888E-04	-1655E-01 -1729E-01 -1804E-01	.7718 .7729 .7742
308.5009 318.5009 328.5009 338.5009	15.4476 12.5032 10.1451 8.2495	.0186 .0237 .0302 .0383	13.4693 13.7481 14.0320 14.3209	83.2762 185.9624 188.6091 191.2182	C R 7.5467 7.6875 7.8261 7.9623	Y 1.1527 1.1495 1.1465 1.1436	1.1526 1.1494 1.1464 1.1435	.9999 .9999 .9999	.1792E-04 .1841E-04 .1888E-04 .1936E-04	.1655E-01 .1729E-01 .1804E-01 .1878E-01	.7718 .7729 .7742 .7755
308.5009 318.5009 328.5009	15.4476 12.5032 10.1451	.0186 .0237 .0302 .0383 .0483	13.4693 13.7481 14.0320	a 183.2762 185.9624 188.6691 191.2182 193.7914 196.3305	C/R P 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277	¥ 1.1527 1.1495 1.1465	1.1526 1.1494 1.1464 1.1435 1.1408 1.1382	.9999 .9999 .9999 .9999	.1792E-04 .1841E-04 .1888E-04 .1936E-04 .1982E-04 .2028E-04	.1655E-01 .1729E-01 .1804E-01 .1878E-01 .1952E-01 .2026E-01	.7718 .7729 .7742 .7755 .7769
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009	15.4476 12.5032 10.1451 8.2495 6.7222 5.4888 4.4907	.0186 .0237 .0302 .0383 .0483 .0609	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169	83.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370	C R 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568	Y 1.1527 1.1495 1.1465 1.1436 1.1409 1.1384 1.1360	1.1526 1.1494 1.1464 1.1435 1.1408 1.1382 1.1358	.9999 .9999 .9999 .9999 .9999 .9999	.1792E-04 .1841E-04 .188EE-04 .1936E-04 .1982E-04 .2028E-04	.1655E-01 .1729E-01 .1804E-01 .1878E-01 .1952E-01 .2026E-01 .2100E-01	.7718 .7729 .7742 .7755 .7769 .7783
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009 368.5009 378.5009	15.4476 12.5032 10.1451 8.2495 6.7222 5.4888 4.4907 3.6814	.0186 .0237 .0302 .0383 .0483 .0609 .0765	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250	a 183.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123	C R P 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 8.4834	Y 1.1527 1.1495 1.1465 1.1409 1.1384 1.1360 1.1337	1.1526 1.1494 1.1464 1.1435 1.1408 1.1382 1.1358 1.1335	.9999 .9999 .9999 .9999 .9999 .9999	.1792E-04 .1841E-04 .1848E-04 .1936E-04 .193E-04 .2028E-04 .2074E-04	.1655E-01 .1729E-01 .1804E-01 .1878E-01 .1952E-01 .2026E-01 .2100E-01	.7718 .7729 .7742 .7755 .7769 .7783 .7796
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009 368.5009 378.5009	15.4476 12.5032 10.1451 8.2495 6.7222 5.4888 4.4907 3.6814 3.0237	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250 15.8376	a 183.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579	C R 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 8.4834 8.6074	1.1527 1.1495 1.1465 1.1469 1.1384 1.1360 1.1337 1.1315	1.1526 1.1494 1.1464 1.1435 1.1408 1.1382 1.1358 1.1335 1.1314	.9999 .9999 .9999 .9999 .9999 .9999	.1792E-04 .1841E-04 .1848E-04 .1936E-04 .1936E-04 .2028E-04 .2074E-04 .2119E-04	.1655E-01 .1729E-01 .1804E-01 .1878E-01 .1952E-01 .2026E-01 .2100E-01 .2174E-01	.7718 .7729 .7742 .7755 .7769 .7783 .7796 .7810
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009 378.5009 378.5009 398.5009	15.4476 12.5032 10.1451 8.2495 6.7222 5.4888 4.4907 3.6814	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250	a 183.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123	C R P 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 8.4834	Y 1.1527 1.1495 1.1465 1.1409 1.1384 1.1360 1.1337	1.1526 1.1494 1.1464 1.1435 1.1408 1.1382 1.1358 1.1335	.9999 .9999 .9999 .9999 .9999 .9999	.1792E-04 .1841E-04 .1888E-04 .1936E-04 .1982E-04 .2028E-04 .2074E-04 .2119E-04 .2103E-04	.1655E-01 .1729E-01 .1804E-01 .1878E-01 .1952E-01 .2026E-01 .2100E-01	.7718 .7729 .7742 .7755 .7769 .7783 .7796
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009 368.5009 378.5009	15.4476 12.5032 10.1451 8.2495 6.7222 5.4888 4.4907 3.0814 3.0237 2.4863 2.0515 1.6945	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250 15.8376 16.1547 16.4762 16.8019	a 183.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 206.1751 208.5652 210.9293	Cp 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 8.4834 8.6074 8.7289 8.8478 8.9640	1.1527 1.1495 1.1495 1.1436 1.1436 1.1334 1.1337 1.1337 1.1315 1.1295 1.1276	1.1526 1.1494 1.1464 1.1435 1.1408 1.1358 1.1358 1.1355 1.1314 1.1293 1.1274 1.1275	.9999 .9999 .9999 .9999 .9999 .9999 .9999 .9999 .9999	.1792E-04 .1841E-04 .1888E-04 .1936E-04 .1936E-04 .2028E-04 .2074E-04 .2163E-04 .2163E-04 .2207E-04	-1655E-01 -1729E-01 -1804E-01 -1878E-01 -2026E-01 -2100E-01 -2174E-01 -2322E-01 -2396E-01 -2471E-01	.7718 .7729 .7742 .7755 .7769 .7783 .7796 .7810 .7823 .7836 .7848
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009 368.5009 388.5009 408.5009 408.5009 418.5009 428.5009	15.4476 12.5032 10.1451 8.2455 6.7222 5.4888 4.4907 3.6814 3.0237 2.4863 2.0515 1.6945 1.4022	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250 16.1547 16.4762 16.8019 17.1317	a 183.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 206.1751 208.5652 210.9293 213.2689	7.5467 7.58675 7.8261 7.9623 8.0962 8.2277 8.3568 6.4834 8.6074 8.7289 8.8478 8.9640 9.0775	1.1527 1.1495 1.1495 1.1436 1.1436 1.1336 1.1337 1.1315 1.1295 1.1276 1.1257 1.1257	1.1526 1.1494 1.1464 1.1435 1.1408 1.1382 1.1335 1.1314 1.1293 1.1274 1.1255 1.1238	.9999 .9999 .9999 .9999 .9999 .9999 .9999 .9999 .9999 .9998	.1792E-04 .1841E-04 .1888E-04 .1982E-04 .2028E-04 .2074E-04 .2119E-04 .2163E-04 .2207E-04 .2250E-04 .2293E-04	-1655E-01 -1729E-01 -1804E-01 -1878E-01 -1952E-01 -2026E-01 -2174E-01 -2248E-01 -2322E-01 -2396E-01 -2545E-01	.7718 .7729 .7742 .7755 .7769 .7783 .7796 .7810 .7823 .7836 .7848 .7848
308.5009 318.5009 328.5009 338.5009 358.5009 358.5009 378.5009 388.5009 408.5009 418.5009 428.5009 428.5009 438.5009	15.4476 12.5032 10.1451 8.2495 6.7222 5.4888 4.4907 3.6814 3.0237 2.4883 2.0515 1.6945 1.4022 1.1624	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250 15.8376 16.1547 16.4762 16.8019 17.1317 17.4656	a 183.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 206.1751 208.5652 210.9293 213.2689 215.5850	Cp 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 8.4834 8.6074 8.7289 8.8478 8.9640 9.0775 9.1883	1.1527 1.1495 1.1465 1.1436 1.1436 1.1384 1.1337 1.1315 1.1295 1.1276 1.1257 1.1240	1.1526 1.1494 1.1494 1.1464 1.1435 1.1382 1.1358 1.1314 1.1293 1.1274 1.1255 1.1258	.9999 .9999 .9999 .9999 .9999 .9999 .9999 .9998 .9998	.1792E-04 .1841E-04 .1888E-04 .1936E-04 .2028E-04 .2074E-04 .2119E-04 .2163E-04 .2207E-04 .2293E-04 .2335E-04	-1655E-01 -1729E-01 -1804E-01 -1878E-01 -1952E-01 -2026E-01 -2174E-01 -2248E-01 -2326E-01 -2471E-01 -2545E-01 -2619E-01	.7718 .7729 .7729 .7755 .7769 .7783 .7810 .7823 .7836 .7848 .7859 .7859
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009 378.5009 388.5009 408.5009 418.5009 428.5009 438.5009 448.5009	15.4476 12.5032 10.1451 8.2495 6.7222 5.4888 4.4907 3.6814 3.0237 2.4883 2.0515 1.6945 1.4022 1.1624	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849 .3516	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.8376 16.1547 16.4762 16.8019 17.1317 17.4656 17.8035	a 183.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 206.1751 208.5652 210.9293 213.2689 215.5850 217.8790	Cp 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 8.4684 8.6074 8.7289 8.8478 8.9640 9.0775 9.1883 9.2964	1.1527 1.1495 1.1495 1.1436 1.1436 1.1337 1.1337 1.1335 1.1275 1.1275 1.1257 1.1257 1.1224 1.1224	1.1526 1.1494 1.1464 1.1435 1.1408 1.1358 1.1358 1.1314 1.1293 1.1274 1.1275 1.1238 1.1222 1.1206	. 9999 . 9999 . 9999 . 9999 . 9999 . 9999 . 9999 . 9998 . 9998 . 9998	.1792E-04 .1841E-04 .1848E-04 .1936E-04 .2028E-04 .2028E-04 .2074E-04 .2119E-04 .21250E-04 .2250E-04 .2250E-04 .2337E-04 .2377E-04	-1655E-01 1729E-01 71804E-01 -1878E-01 -1952E-01 -2026E-01 -2100E-01 -2174E-01 -2322E-01 -2322E-01 -2376E-01 -2471E-01 -2545E-01 -2693É-01	.7718 .7729 .7729 .7755 .7769 .7783 .77610 .7810 .7823 .7836 .7859 .7869 .7869
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009 378.5009 408.5009 408.5009 418.5009 428.5009 448.5009 448.5009 458.5009	15.4476 12.5032 10.1451 8.2495 6.7222 5.4888 4.4907 3.6814 3.0237 2.4883 2.0515 1.6945 1.4022 1.1624	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250 15.8376 16.1547 16.4762 16.8019 17.1317 17.4656	a 183.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 206.1751 208.5652 210.9293 213.2689 215.5850	Cp 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 8.4834 8.6074 8.7289 8.8478 8.9640 9.0775 9.1883	1.1527 1.1495 1.1465 1.1436 1.1436 1.1384 1.1337 1.1315 1.1295 1.1276 1.1257 1.1240	1.1526 1.1494 1.1464 1.1435 1.1408 1.1358 1.1358 1.1274 1.1293 1.1274 1.1255 1.1238 1.1232 1.1206	. 9999 . 9999 . 9999 . 9999 . 9999 . 9999 . 9999 . 9998 . 9998 . 9998 . 9998 . 9998	.1792E-04 .1841E-04 .1888E-04 .1936E-04 .2028E-04 .2074E-04 .2119E-04 .2163E-04 .2207E-04 .2293E-04 .2335E-04	-1655E-01 -1729E-01 -1804E-01 -1878E-01 -1952E-01 -2026E-01 -2174E-01 -2248E-01 -2326E-01 -2471E-01 -2545E-01 -2619E-01	.7718 .7729 .7729 .7755 .7769 .7783 .7810 .7823 .7836 .7848 .7859 .7859
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009 378.5009 388.5009 408.5009 418.5009 428.5009 438.5009 448.5009	15.4476 12.5032 10.15032 10.1495 6.7222 5.4888 4.4907 3.6814 3.0237 2.4863 2.0515 1.6945 1.4022 1.1624 .8032 .6695 .5590	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849 .3516 .4330 .5321	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250 16.8376 16.1547 16.4762 16.8019 17.1317 17.4656 17.8035 18.1451 18.4905	a 183.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 208.5652 210.9293 213.2689 215.5850 217.8790 220.4056	Cp 7.5467 7.6875 7.8261 7.9623 8.2962 8.2277 8.3568 8.478 8.6074 8.7289 8.8478 9.0775 9.188 9.2964 9.4016 9.5040 9.6035	1.1527 1.1495 1.1495 1.1406 1.1409 1.1384 1.1337 1.1315 1.1295 1.1276 1.1276 1.1224 1.1208 1.1194 1.1180 1.1180	1.1526 1.1494 1.1464 1.1435 1.1408 1.1358 1.1335 1.1314 1.1274 1.1275 1.1238 1.1225 1.1206 1.1120 1.1178	.9999 .9999 .9999 .9999 .9999 .9999 .9999 .9998 .9998 .9998 .9998 .9998 .9998	.1792E-04 .1841E-04 .1846E-04 .1936E-04 .2028E-04 .2074E-04 .2119E-04 .2119E-04 .2250E-04 .2250E-04 .2335E-04 .2337E-04 .2418E-04 .2418E-04	-1655E-01 -1729E-01 -1804E-01 -1878E-01 -1952E-01 -2026E-01 -2100E-01 -2174E-01 -234EE-01 -234EE-01 -2345E-01 -2545E-01 -2619E-01 -2767E-01 -2842E-01 -2842E-01	.7718 .7729 .7729 .7742 .7755 .7769 .7783 .7796 .78123 .7836 .7848 .7848 .7848 .7869 .7869 .7878 .7893
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009 378.5009 408.5009 418.5009 428.5009 448.5009 448.5009 458.5009 458.5009 468.5009 478.5009 478.5009 478.5009	15.4476 12.5032 10.1451 8.2495 6.7222 5.4888 4.4907 3.6814 3.0237 2.0515 1.6945 1.69422 1.1624 9654 8032 6695 5590	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849 .3516 .4330 .5321 .6523 .7979	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.22169 15.8376 16.1547 16.4762 16.8019 17.1317 17.4656 17.8035 18.1451 18.4905 18.8394 19.1918	a 183.2762 185.9624 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 206.1751 208.5652 210.9293 213.2689 217.8790 220.1521 222.4056 224.6410 226.8598	Cp 7.5467 7.6875 7.8261 7.9623 8.2277 8.3568 8.4834 8.6074 8.7289 8.8478 8.8478 8.9640 9.0775 9.1883 9.2964 9.5040 9.6035 9.7001	1.1527 1.1495 1.1405 1.1409 1.1384 1.1360 1.1337 1.1315 1.1295 1.1276 1.1240 1.1240 1.1224 1.1208 1.1194 1.1168 1.1168	1.1526 1.1494 1.1465 1.1408 1.1358 1.1358 1.1358 1.1274 1.1274 1.1258 1.1222 1.1206 1.1206 1.1206 1.1206 1.1206 1.1206	.9999 .9999 .9999 .9999 .9999 .9999 .9999 .9998 .9998 .9998 .9998 .9998 .9998	.1792E-04 .1841E-04 .1848E-04 .1936E-04 .2028E-04 .2074E-04 .2119E-04 .2119E-04 .2163E-04 .2250E-04 .2293E-04 .2335E-04 .2337E-04 .2459E-04 .2450E-04	-1655E-01 -1729E-01 -1804E-01 -1878E-01 -1952E-01 -2026E-01 -2174E-01 -2248E-01 -2322E-01 -2322E-01 -2471E-01 -2545E-01 -2619E-01 -2767E-01 -2767E-01 -2842E-01 -2991E-01	.7718 .7729 .7729 .7755 .7769 .7783 .7780 .7810 .7823 .7836 .7859 .7859 .7869 .7878 .7898 .7893 .7893
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009 368.5009 388.5009 408.5009 428.5009 428.5009 438.5009 448.5009 458.5009 458.5009 458.5009 468.5009 468.5009 468.5009 468.5009 468.5009 468.5009 468.5009 468.5009 468.5009	15.4476 12.5032 10.1451 8.2495 6.7222 5.4888 4.4907 3.6814 3.0237 2.4883 2.0515 1.6945 1.4022 1.1624 .9654 .8032 .6695 .5590 .4676 .3919	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849 .3516 .4330 .5321 .6523 .7979 .9738	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2269 15.5250 15.8376 16.1547 16.4762 16.8019 17.1317 17.4656 17.8035 18.1451 18.4905 18.8394 19.1918 19.1918	a 183.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 206.1751 208.5652 210.9293 213.2689 217.8790 220.1521 222.4056 224.6410 226.8598 229.0637	Cp 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 8.4834 8.6074 8.7289 8.9640 9.0775 9.1883 9.2964 9.5040 9.6035 9.7098	1.1527 1.1495 1.1465 1.1436 1.1436 1.1384 1.1337 1.1315 1.1295 1.1276 1.1257 1.1240 1.1124 1.1194 1.1180 1.1168 1.1156 1.1156	1.1526 1.1494 1.1495 1.1408 1.1358 1.1358 1.13314 1.1279 1.1275 1.1232 1.1206 1.1178 1.1178 1.1166 1.1154	. 9999 . 9999 . 9999 . 9999 . 9999 . 9999 . 9999 . 9998 . 9998 . 9998 . 9998 . 9998 . 9998 . 9998	.1792E-04 .1841E-04 .1888E-04 .1936E-04 .2028E-04 .2074E-04 .2163E-04 .2207E-04 .2293E-04 .2293E-04 .2335E-04 .2375E-04 .2377E-04 .2418E-04 .2418E-04 .2540E-04 .2540E-04	-1655E-01 1729E-01 1804E-01 1878E-01 1952E-01 -2026E-01 -2174E-01 -2248E-01 -2396E-01 -2471E-01 -2698E-01 -2698E-01 -2698E-01 -2767E-01 -2842E-01 -2916E-01 -2991E-01	.7718 .7729 .7729 .7755 .7769 .7769 .77810 .7810 .7823 .7836 .7848 .7848 .7869 .7869 .7878 .7898 .7993 .7903
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009 368.5009 408.5009 408.5009 428.5009 448.5009 448.5009 448.5009 448.5009 458.5009 468.5009 468.5009 468.5009 968.5009 968.5009	15.4476 12.5032 10.1495 6.7222 5.4888 4.4907 3.6814 3.0237 2.4863 2.0515 1.6945 1.4022 1.1624 .9654 .8032 .5590 .4676 .3919	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849 .3516 .4330 .5321 .6523 .7979 .9738 1.1860	13.4693 13.7481 14.0320 14.3209 14.0148 14.9135 15.2169 15.5250 16.1547 16.4762 17.1317 17.4656 17.8035 18.4905 18.8394 19.1918 19.5475 19.9065	83.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 206.1751 208.5652 210.9293 213.2689 215.5850 217.8790 220.4056 224.6410 226.8598 229.0637 231.2544	7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 8.6074 8.478 8.9640 9.0775 9.1883 9.2964 9.5040 9.5040 9.5040 9.7001 9.7031	1.1527 1.1495 1.1405 1.1409 1.1336 1.1337 1.1315 1.1295 1.1276 1.1240 1.1240 1.1240 1.11240 1.	1.1526 1.1494 1.1464 1.1435 1.1408 1.1358 1.1335 1.1274 1.1274 1.1275 1.1238 1.1225 1.1238 1.1222 1.1178 1.1166 1.1166 1.1154 1.1143 1.1143	.9999 .9999 .9999 .9999 .9999 .9999 .9999 .9998 .9998 .9998 .9998 .9998 .9998	.1792E-04 .1841E-04 .1846E-04 .1936E-04 .2028E-04 .2028E-04 .2119E-04 .2119E-04 .2163E-04 .2207E-04 .2250E-04 .2337E-04 .2337E-04 .2418E-04 .2459E-04 .2500E-04 .2580E-04 .2580E-04	-1655E-01 -1729E-01 -1804E-01 -1878E-01 -1952E-01 -2026E-01 -2174E-01 -2248E-01 -2322E-01 -2396E-01 -2545E-01 -2649E-01 -2693E-01 -2693E-01 -2842E-01 -2946E-01 -2946E-01 -2946E-01 -2946E-01 -2946E-01 -2946E-01 -3946E-01	.7718 .7729 .7729 .7742 .7755 .7769 .7783 .7796 .7813 .7823 .7836 .7845 .7845 .7869 .7869 .7878 .7868 .7893 .7893 .7905
308.5009 318.5009 328.5009 338.5009 358.5009 368.5009 378.5009 408.5009 418.5009 428.5009 448.5009 448.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009	15.4476 12.5032 10.1495 6.7222 5.4888 4.4907 3.6814 3.0237 2.0515 1.6945 1.4022 1.1624 .8032 .6595 .5590 .4676 .3290 .2767 .2331	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .1198 .1493 .1856 .2302 .2849 .3516 .4330 .5321 .6523 .7979 .9738 .11860 1.4411 1.7474 2.1142	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250 15.8376 16.1547 16.4762 17.4056 17.8035 18.1451 18.4905 18.8394 19.1918 19.5475 19.9065 20.2685 20.2685	a 183.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 206.1751 208.5652 210.9293 213.2689 215.5850 217.8790 220.1521 222.4056 224.6410 226.8598 229.0637 231.2544 233.4341 235.6050	Cp 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 8.4834 8.6074 8.7289 8.9640 9.0775 9.1883 9.2964 9.4016 9.5040 9.6035 9.7001 9.7038 9.8846 9.723 9.8846	1.1527 1.1495 1.1465 1.1436 1.1436 1.1384 1.1315 1.1295 1.1276 1.1257 1.1257 1.1240 1.1194 1.1198 1.1198 1.1198 1.1198 1.1168 1.1156 1.1156 1.1156 1.1144 1.1134 1.1134	1.1526 1.1494 1.1464 1.1435 1.1358 1.1358 1.1335 1.1274 1.1275 1.1232 1.1222 1.11206 1.1124 1.1143 1.1143 1.1143 1.1143 1.1143 1.1133 1.1125	.9999 .9999 .9999 .9999 .9999 .9999 .9999 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9999 .9999 .9999	.1792E-04 .1841E-04 .1848E-04 .1936E-04 .2028E-04 .2028E-04 .2074E-04 .2119E-04 .2119E-04 .2250E-04 .2250E-04 .2377E-04 .2377E-04 .2377E-04 .250E-04 .250E-04 .250E-04 .250E-04 .250E-04 .250E-04 .250E-04 .250E-04 .250E-04	-1655E-01 1779E-01 71804E-01 1878E-01 1952E-01 2026E-01 2174E-01 2248E-01 2396E-01 2471E-01 2693E-01 2693E-01 2842E-01 2842E-01 2842E-01 2916E-01 2916E-01 2991E-01 3846E-01 3846E-01 3846E-01 3846E-01	.7718 .7729 .7729 .7755 .7769 .7769 .77810 .7810 .7823 .7836 .7848 .7869 .7869 .7878 .7898 .7898 .7903 .7907 .7907 .7905
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009 368.5009 408.5009 418.5009 428.5009 438.5009 448.5009 448.5009 458.5009 468.5009 478.5009	15.4476 12.5032 10.1451 8.2455 6.7222 5.4888 4.4907 3.6814 3.0237 2.4863 2.0515 1.6945 1.4022 1.1624 .8032 .6695 .5590 .4676 .3919 .3290 .2767 .2331 .1967	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849 .3516 .4330 .7979 .9738 1.1860 1.4411 1.7474 2.1142 2.5525	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250 15.8376 16.1547 16.4762 16.8019 17.1317 17.4656 17.8035 18.4905 18.4905 18.8394 19.1918 19.5475 20.2685 20.2685 20.26834 21.0012	83.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 208.5652 210.9293 213.2689 215.5850 217.8790 220.4056 224.6410 226.8598 229.0637 231.2544 233.4341 235.6050 237.7697	Cp 7.5467 7.6875 7.8261 7.9623 8.2277 8.3568 8.60776 8.7289 8.4478 8.9640 9.0775 9.1883 9.2964 9.5040 9.5040 9.5040 9.5040 9.7001 9.7001 9.7001 9.7001 9.7001 9.7001 9.7001 9.7001 9.7001	1.1527 1.1495 1.1405 1.1409 1.1384 1.1360 1.1337 1.1315 1.1295 1.1276 1.1240 1.1228 1.11240 1.1128 1.1194 1.1180 1.1168 1.1144 1.1134 1.1144 1.1144 1.1144 1.1144 1.1144	1.1526 1.1494 1.1464 1.1435 1.1408 1.1358 1.1335 1.1274 1.1275 1.1238 1.1225 1.1238 1.1222 1.11206 1.1166 1.1154 1.1143 1.1143 1.1143 1.1125 1.1143 1.1125	.9999 .9999 .9999 .9999 .9999 .9999 .9999 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998	.1792E-04 .1841E-04 .1848E-04 .1936E-04 .2028E-04 .2028E-04 .2119E-04 .2119E-04 .2163E-04 .2250E-04 .2250E-04 .2335E-04 .2335E-04 .2335E-04 .2459E-04 .2540E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2509E-04	-1655E-01 -1729E-01 -1804E-01 -1878E-01 -1952E-01 -2026E-01 -2174E-01 -2248E-01 -2322E-01 -2326E-01 -2471E-01 -2545E-01 -2619E-01 -2619E-01 -2767E-01 -2842E-01 -291E-01 -291E-01 -3845E-01 -3845E-01 -3845E-01 -3845E-01 -3845E-01	.7718 .7729 .7729 .7755 .7769 .7769 .77823 .7823 .7845 .7845 .7859 .7869 .7869 .7869 .7878 .7893 .7893 .7905 .7905 .7907 .7905 .7902 .7898
308.5009 318.5009 328.5009 338.5009 358.5009 368.5009 378.5009 408.5009 418.5009 428.5009 448.5009 448.5009 458.5009 538.5009	15.4476 12.5032 10.1451 8.2495 6.7222 5.4888 4.4907 3.6814 3.0237 2.0515 1.6945 1.1624 .9654 .8695 .5590 .4676 .3919 .2767 .2331 .1967 .1664	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849 .3516 .4330 .5321 .6523 .7979 .9738 .11860 .1,4411 .1441 .14	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250 15.8376 16.1547 16.4762 16.8019 17.1317 17.4656 17.8035 18.1451 18.4905 18.8394 19.1918 19.5475 19.9065 20.2685 20.6334 21.0012	a 183.2762 185.9624 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 206.1751 208.5652 210.9293 213.2689 217.8790 220.1521 222.4056 224.6410 226.8598 229.0637 231.2544 233.4341 235.6050 237.7697 239.9313	Cp 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 6.6074 8.7289 8.8478 8.9640 9.0775 9.0775 9.5040 9.6035 9.7001 9.7938 9.8846 9.7001 9.7938 10.0571 10.1388 10.2175	1.1527 1.1495 1.1405 1.1409 1.1384 1.1360 1.1337 1.1315 1.1295 1.1276 1.1257 1.1240 1.1240 1.1240 1.1168 1.1194 1.1180 1.1168 1.1194 1.1180 1.1168 1.1194 1.1194 1.1194 1.1194 1.1194 1.1196 1.1196 1.1196 1.1194 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196	1.1526 1.1494 1.1464 1.1435 1.1435 1.1338 1.1335 1.1331 1.1274 1.1232 1.1232 1.1206 1.1192 1.1166 1.1178 1.1164 1.1163 1.1133	.9999 .9999 .9999 .9999 .9999 .9999 .9999 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998	.1792E-04 .1841E-04 .1888E-04 .1936E-04 .2028E-04 .2028E-04 .2017E-04 .2117E-04 .2107E-04 .2207E-04 .2250E-04 .2335E-04 .2335E-04 .2377E-04 .2459E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2677E-04 .2677E-04 .2677E-04 .2736E-04 .2736E-04	-1655E-01 1729E-01 71804E-01 1878E-01 1952E-01 2026E-01 2174E-01 2248E-01 2322E-01 2322E-01 23471E-01 2545E-01 2693E-01 2767E-01 2767E-01 2991E-01 3905E-01 3905E-01 3905E-01 3905E-01 3905E-01 3306E-01 3315E-01 3336E-01 3336E-01 3336E-01	.7718 .7729 .7742 .7755 .7769 .7796 .7823 .7836 .7859 .7869 .7869 .7878 .7993 .7905 .7907 .7907 .7907 .7905 .7905 .7892
308.5009 318.5009 328.5009 338.5009 348.5009 368.5009 378.5009 408.5009 418.5009 428.5009 438.5009 448.5009 448.5009 458.5009 458.5009 458.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009	15.4476 12.5032 10.1495 6.7222 5.4888 4.4907 3.6814 3.0237 2.4883 2.0515 1.6024 1.1624 .8032 66945 1.4022 1.6654 .8032 .5590 .4676 .3319 .2767 .2767 .2767 .2767	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849 .3516 .4330 .5321 .6523 .7979 .9738 .11860 1.4411 1.7474 2.1142 2.5525 3.0749	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250 15.8376 16.1547 16.4762 16.8019 17.1317 17.4656 17.8035 18.1451 18.4905 18.8394 19.1918 19.5475 20.2685 20.2685 20.2685 21.3716 21.7445	a 183.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 208.5652 210.9293 213.2689 215.5850 217.8790 220.1521 222.4056 224.6410 226.8598 229.0637 231.2544 233.4341 235.6050 237.7697 239.9313 242.0932	CP 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 8.4834 8.6074 8.7289 8.8478 8.9640 9.0775 9.1883 9.2964 9.5040 9.5040 9.7001 9.7938 9.8846 9.9723 10.0571 10.1388 10.2175 10.2931	1.1527 1.1495 1.1405 1.1409 1.1336 1.1337 1.1315 1.1295 1.1276 1.1257 1.1240 1.11240 1.11240 1.1180 1.1168 1.1168 1.1164 1.1168 1.1164	1.1526 1.1494 1.1464 1.1435 1.1358 1.1358 1.1335 1.1274 1.1274 1.1235 1.1274 1.1236 1.12206 1.1178 1.1166 1.1154 1.1143 1.1155 1.11178 1.1166 1.1154 1.11173	.9999 .9999 .9999 .9999 .9999 .9999 .9999 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998	.1792E-04 .184E-04 .184E-04 .1936E-04 .2028E-04 .2028E-04 .2119E-04 .2119E-04 .2119E-04 .2250E-04 .2250E-04 .2335E-04 .2335E-04 .2335E-04 .2317E-04 .2459E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2510E-04 .2510E-04 .2510E-04 .2510E-04 .2510E-04 .2510E-04 .2619E-04 .2619E-04 .2619E-04 .2619E-04 .2619E-04	-1655E-01 -1729E-01 -1804E-01 -1878E-01 -1952E-01 -2026E-01 -2174E-01 -2248E-01 -2322E-01 -2326E-01 -2396E-01 -2471E-01 -2545E-01 -2619E-01 -2619E-01 -2619E-01 -2767E-01 -2842E-01 -2916E-01 -2916E-01 -3215E-01 -3215E-01 -3215E-01 -3315E-01	.7718 .7729 .7729 .7755 .7769 .7783 .7796 .78123 .7836 .7848 .7848 .7869 .7869 .7878 .7898 .7898 .7903 .7907 .7907 .7907 .7907 .7902 .7898 .7898
308.5009 318.5009 328.5009 338.5009 358.5009 368.5009 378.5009 408.5009 418.5009 428.5009 428.5009 448.5009 448.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009 458.5009 508.5009 508.5009 508.5009 508.5009 508.5009 508.5009 509.5009 509.5009 509.5009 509.5009 509.5009 509.5009 509.5009 509.5009 509.5009 509.5009	15.4476 12.5032 10.1451 8.2495 6.7222 5.4888 4.4907 3.6814 3.0237 2.4863 2.0515 1.6922 1.1624 .8032 .6695 .5590 .4676 .3919 .2767 .2331 .1967 .1664 .1410 .1197	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849 .3516 .4330 .5321 .6523 .7979 .9738 .11860 .1,4411 .1441 .14	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250 15.8376 16.1547 16.4762 16.8019 17.1317 17.4656 17.8035 18.1451 18.4905 18.8394 19.1918 19.5475 19.9065 20.2685 20.6334 21.0012	a 183.2762 185.9624 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 206.1751 208.5652 210.9293 213.2689 217.8790 220.1521 222.4056 224.6410 226.8598 229.0637 231.2544 233.4341 235.6050 237.7697 239.9313	Cp 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 6.6074 8.7289 8.8478 8.9640 9.0775 9.0775 9.5040 9.6035 9.7001 9.7938 9.8846 9.7001 9.7938 10.0571 10.1388 10.2175	1.1527 1.1495 1.1405 1.1409 1.1384 1.1360 1.1337 1.1315 1.1295 1.1276 1.1257 1.1240 1.1240 1.1240 1.1168 1.1194 1.1180 1.1168 1.1194 1.1180 1.1168 1.1194 1.1194 1.1194 1.1194 1.1194 1.1196 1.1196 1.1196 1.1194 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196 1.1196	1.1526 1.1494 1.1495 1.1408 1.1358 1.1358 1.13314 1.1275 1.1275 1.1232 1.1206 1.1178 1.1266 1.1178 1.1143 1.1143 1.1143 1.1143 1.1143 1.11105 1.1109	.9999 .9999 .9999 .9999 .9999 .9999 .9999 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998	.1792E-04 .1841E-04 .1888E-04 .1936E-04 .2028E-04 .2028E-04 .2017E-04 .2117E-04 .2107E-04 .2207E-04 .2250E-04 .2335E-04 .2335E-04 .2377E-04 .2459E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2677E-04 .2677E-04 .2677E-04 .2736E-04 .2736E-04	-1655E-01 1729E-01 71804E-01 1878E-01 1952E-01 2026E-01 2174E-01 2248E-01 2322E-01 2322E-01 23471E-01 2545E-01 2693E-01 2767E-01 2767E-01 2991E-01 3905E-01 3905E-01 3905E-01 3905E-01 3905E-01 3306E-01 3315E-01 3336E-01 3336E-01 3336E-01	.7718 .7729 .7729 .7755 .7769 .7796 .7823 .7836 .7859 .7859 .7869 .7878 .7898 .7993 .7905 .7907 .7907 .7907 .7905 .7905 .7892
308.5009 318.5009 328.5009 338.5009 348.5009 368.5009 378.5009 408.5009 418.5009 428.5009 438.5009 448.5009 448.5009 458.5009 458.5009 458.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009	15.4476 12.5032 10.1495 6.7222 5.4888 2.4907 3.6814 2.4863 2.0515 1.6945 1.4022 1.1624 .9654 .8032 .5590 .4676 .3919 .3290 .2767 .16410 .1197 .1018 .0867	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849 .3516 .4330 .7979 .9738 .11860 .14411 .17474 .21142 .25525 .3.0749 .3.07	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250 16.1547 16.4762 16.8019 17.1317 17.4656 17.8035 18.4905 18.8394 19.1918 19.5475 20.2685 20.2685 20.6334 21.3716 22.1198 22.4973 22.4973	83.2762 183.2762 185.9624 188.6091 191.2182 193.7914 196.3305 198.8370 201.3123 203.7579 208.5652 210.9293 213.2689 215.5850 217.8790 220.4056 224.4056 237.7697 239.9313 242.0932 244.2594 246.4344 248.6234	7.5467 7.6875 7.8261 7.9623 8.2277 8.3568 8.6074 8.7289 8.8478 8.9640 9.0775 9.1883 9.2964 9.5040 9.5040 9.5040 9.6035 9.7001 9.7938 10.0571 10.3657 10.3657 10.4352	1.1527 1.1495 1.1405 1.1409 1.1380 1.1360 1.1337 1.1295 1.1276 1.1276 1.1240 1.1240 1.11208 1.1168 1.1168 1.1164 1.1164 1.1168 1.1164 1.1168 1.1108 1.1108 1.1108 1.1094 1.1084 1.1084 1.1080	1.1526 1.1494 1.1464 1.1435 1.1408 1.1358 1.1335 1.1274 1.1274 1.1275 1.1238 1.1225 1.1238 1.1226 1.11206 1.1178 1.1143 1.1143 1.1143 1.1143 1.1110 1.1101 1.1101 1.11099 1.11099	.9999 .9999 .9999 .9999 .9999 .9999 .9999 .9998 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988	.1792E-04 .1841E-04 .1846E-04 .1846E-04 .1936E-04 .2028E-04 .2028E-04 .2119E-04 .2119E-04 .2250E-04 .2250E-04 .2250E-04 .2337E-04 .2337E-04 .2418E-04 .2459E-04 .2500E-04 .2500E-04 .2509E-04 .2509E-04 .2509E-04 .2509E-04 .2509E-04 .2509E-04 .2509E-04 .2509E-04 .2509E-04 .2509E-04 .2509E-04 .2659E-04 .274E-04 .285E-04 .285E-04 .2952E-04	-1655E-01 -1729E-01 -1804E-01 -1878E-01 -1952E-01 -2026E-01 -2174E-01 -2248E-01 -2322E-01 -2322E-01 -2471E-01 -2545E-01 -2649E-01 -2649E-01 -2642E-01 -2991E-01 -3246E-01 -3246E-01 -3246E-01 -3246E-01 -3246E-01 -3246E-01 -3246E-01 -3246E-01 -3246E-01 -3246E-01 -3246E-01 -3246E-01 -3246E-01 -3246E-01 -3246E-01 -3256E-01 -3364E-01 -3515E-01 -3515E-01 -3590E-01 -3666E-01	.7718 .7729 .7729 .7755 .7769 .7769 .778123 .7845 .7845 .7846 .7846 .7869 .7869 .7878 .7893 .7907 .7907 .7907 .7898 .789
308.5009 318.5009 328.5009 338.5009 348.5009 358.5009 368.5009 368.5009 428.5009 428.5009 428.5009 438.5009 458.5009 458.5009 458.5009 458.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009 568.5009	15.4476 12.5032 10.12495 6.7222 5.4888 4.4907 3.6814 3.0237 2.4883 2.0515 1.4022 1.1624 .8032 6.695 .5590 .4676 3919 .3290 .2767 .2331 .1967 .1918	.0186 .0237 .0302 .0383 .0483 .0609 .0765 .0958 .1198 .1493 .1856 .2302 .2849 .3516 .4330 .5321 .6523 .7979 .9738 .11860 1.4411 1.7474 2.1142 2.5525 3.0749 3.6963 4.4330 4.4330	13.4693 13.7481 14.0320 14.3209 14.6148 14.9135 15.2169 15.5250 15.8376 16.1547 16.4762 17.1317 17.4656 17.8035 18.1451 18.8394 19.1918 19.5475 19.9065 20.2685 20.2685 21.3716 21.7445 22.1198 22.4973	a 183.2762 185.9624 185.9624 185.9624 185.9624 193.7914 196.3305 198.8370 201.3123 203.7579 206.1751 208.5652 210.9293 213.2689 227.4056 224.6410 226.8596 227.7697 231.2544 233.4341 235.6050 237.7697 239.9313 242.0932 244.2594 246.4343	Cp 7.5467 7.6875 7.8261 7.9623 8.0962 8.2277 8.3568 8.6074 8.7289 8.9640 9.0775 9.1883 9.2964 9.5040 9.5050 9.7031 9.7938 9.8846 9.5040 9.0571 10.1388 10.2931 10.3657 10.4352	1.1527 1.1495 1.1405 1.1409 1.1384 1.1360 1.1337 1.1315 1.1295 1.1276 1.1257 1.1244 1.1128 1.1194 1.1168 1.1156 1.1144 1.1108 1.1108 1.1108 1.1108 1.1094 1.1088 1.1094	1.1526 1.1494 1.1495 1.1408 1.1358 1.1358 1.13314 1.1275 1.1275 1.1232 1.1206 1.1178 1.1266 1.1178 1.1143 1.1143 1.1143 1.1143 1.1143 1.11105 1.1109	.9999 .9999 .9999 .9999 .9999 .9999 .9999 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9999 .9999 .9999 .9999 .9999 .9999 .9999 .9999 .9999 .9999 .9999 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9998 .9999 .9999 .9999 .9999 .9999 .9998 .9988 .9988 .9988 .9988 .9988 .9988 .9988 .9988	.1792E-04 .1841E-04 .1848E-04 .1936E-04 .2028E-04 .2028E-04 .2074E-04 .2119E-04 .2119E-04 .2250E-04 .2250E-04 .2250E-04 .2377E-04 .2377E-04 .2377E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2500E-04 .2659E-04 .2626E-04 .2630E-04 .2630E-04 .2630E-04 .2630E-04 .2630E-04 .2630E-04 .2630E-04 .2630E-04 .2630E-04 .2630E-04	-1655E-01 1729E-01 71804E-01 1878E-01 1952E-01 -2026E-01 -2104E-01 -2174E-01 -2248E-01 -232E-01 -232E-01 -2471E-01 -2545E-01 -2619E-01 -2767E-01 -2991E-01 -2991E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01 -3946E-01	.7718 .7729 .7729 .7755 .7769 .7759 .78123 .78123 .7859 .7859 .7866 .7866 .7898 .7898 .7905 .7907 .7907 .7905 .7898

TABLE IV. - Continued

	s /R=36.0000											
T	V	р	h∕RT	a	c _p /R	γ	Υe	Z	μ	k	N_{Pr}	
332.3	537 15.44	76 .026	1 14.1429	189.6223	7.8786	1.1453	1.1453	1.0000	.1907E-04	.1832E-01	.7747	
342.3				192.2177	8.0139	1.1425	1.1425	.9999	.1954E-04	.1906E-01	.7760	
352.3				194.7781	8.1469	1.1399	1.1398	.9999	.2000E-04	.1980E-01	.7774	
362.3				197.3048	8.2774	1.1374	1.1373	.9999	.2046E-04	.2054E-01	.7788	
372.3				199.7995	8.4054	1.1350	1.1349	.9999	.2091E-04	.2128E-01	.7802	
382.3				202.2636	8.5310	1.1328	1.1327	.9999	.2136E-04	.2202E-01	.7815	
392.3				204.6984	8.6540	1.1307	1.1306	9999	.2180E-04	.2276E-01	.7828	
402.3				207.1052	8.7744	1.1287	1.1286	9999	.2223E-04	.2351E-01	.7841	
412.3				209.4851	8.8921	1.1268	1.1266	.9999	.2266E-04	.2425E-01	.7852	
422.3				211.8394	9.0072	1.1250	1.1248	.9999	.2309E-04	.2499E-01	.7863	
432.3				214.1692	9.1195	1.1233	1.1231	•9999	.2351E-04	.2573E-01	.7873	
442.3				216.4757	9.2291	1.1216	1.1215	.9999	.2393E-04	.2647E-01	.7881	
452.3				218.7598	9.3359	1.1201	1.1200	.9999	.2434E-04	.2721E-01	.7889	
462.3			3 18.2791	221.0229	9.4398	1.1187	1.1186	• 9999	.2475E-04	.2796E-01	.7895	
472.3		.427	9 18.6261	223.2659	9.5409	1.1173	1.1172	.9999	.2515E-04	.2870E-01	.7900	
482.3	537 .85	.523	0 18.9766	225.4901	9.6390	1.1161	1.1159	.9999	.2555E-04	.2944E-01	.7903	
492.3	537 .71	95 .637	9 19.3306	227.6967	9.7342	1.1149	1.1148	.9999	.2595E-04	.3018E-01	.7905	
502.3	537 .60	32 .776	4 19.6880	229.8870	9.8264	1.1137	1.1137	.9999	.2634E-04	.3093E-01	.7906	
512.3	537 .50	.942	8 20.0485	232.0625	9.9155	1.1127	1.1127	1.0000	.2673E-04	.3167E-01	.7905	
522.3		3 1.142	6 20.4121	234.2246	10.0016	1.1117	1.1117	1.0000	.2711E-04	.3242E-01	.7903	
532.3				236.3751	10.0846	1.1108	1.1109	1.0001	.2749E-04	.3316E-01	.7899	
542.35	537 .30	34 1.667	2 21.1481	238.5159	10.1645	1.1099	1.1102	1.0002	.2787E-04	.3391E-01	.7893	
552.3	537 .25	56 2.007	6 21.5202	240.6491	10.2412	1.1092	1.1095	1.0003	.2825E-04	.3466E-01	.7886	
562.3	537 .21	74 2.412	3 21.8949	242.7770	10.3148	1.1085	1.1090	1.0004	.2862 E-04	.3540E-01	.7878	
572.3	537 .18	6 2.892	6 22.2720	244.9023	10.3852	1.1079	1.1086	1.0006	.2899 E-04	.3615E-01	.7867	
582.3	537 .15	70 3.461	2 22.6513	247.0283	10.4523	1.1073	1.1083	1.0009	.2936E- 04	.3691E-01	.7856	
588.8	889 .14	14 3.886	6 22.9003	248.4195	10.4945	1.1070	1.1081	1.0010	.2960E -04	.374 0 E-01	.7847	
				:	R=36.500	0						
Т	٧	р	h∕RT	а	c /R	γ	Y	Z	μ	k	N_	
•	. *	۲		•	Ď.	•	Υe	_	•		N _{Pr}	
356.6	148 15.44	76 .021	5 14.8631	195.9121	8.2052	1.1387	1.1387	1.0000	.2021E-04	.2013E-01	.7780	
366.8	148 12.63	16 .027	1 15.1658	198.4247	8.3346	1.1363	1.1362	1.0000	.2066E-04	.2087E-01	.7794	
376.8	148 10.35	12 .033	9 15.4732	200.9058	8.4615	1.1340	1.1339	1.0000	.2111E-04	.2161E-01	.7808	
386.8				203.3569	8.5858	1.1318	1.1317	1.0000	.2155E-04	.2235E-01	.7821	
396.8	148 6.99	13 .052			8.7076	1.1297	1.1297	•9999	.2199E-04	.2309E- 01	.7834	
406.8				208.1739	8.8268	1.1278	1.1277	.9999	.2243E-04	.2384E-01	• 7846	
416.8				210.5422	8.9433	1.1259	1.1258	.9999	.2285E-04	.2458E-01	.7857	
426.8				212.8852	9.0571	1.1241	1.1241	.9999	.2328E-04	.2532E-01	.7867	
436.8				215.2040	9.1681	1.1225	1.1224	.9999	.2370E-04	.2606E-01	.7876	
446.8				217.4996	9.2763	1.1209	1.1208	.9999	.2411E-04	.2680E-01	.7884	
456.8				219.7730	9.3817	1.1194	1.1193	.9999	.2452E-04	.2754E-01	.7891	
466.8				222.0253	9.4843	1.1180	1.1179	.9999	.2493E-04	.2828E-01	.7897	
476.8				224.2575	9.5838	1.1166	1.1166	.9999	.2533E-04	.2902E-01	.7901	
486.8				226.4705	9.6805	1.1154	1.1153	.9999	.2573E-04	.2977E-01	.7904 .7905	
496.8	148 1.09			228.6654	9.7741	1.1142	1.1141	1.0000	.2612E-04	.3051E-01		
506.8			9 19.8501	230.8434	9.8647	1.1131	1.1130	1.0000	.2651E-04	.3125E-01	.7905	
516.8					0.0522	1 1174	1. 1120					
526.8	148 .77	27 .623	6 20.2123	233.0055	9.9522	1.1120	1.1120	1.0000	.2689E-04	.3199E-01	.7903	
536.8	148 .77 148 .65	27 .623 05 .755	6 20.2123 1 20.5776	233.0055 235.1530	10.0366	1.1110	1.1111	1.0000	.2728E-04	.3274E-01	.7900	
546.8	148 .77 148 .65 148 .54	27 .623 05 .755 86 .912	20.2123 1 20.5776 4 20.9458	233.0055 235.1530 237.2871	10.0366 10.1178	1.1110 1.1101	1.1111	1.0000	.2728E-04 .2766E-04	.3274E-01 .3348E-01	.7900 .7895	
	148 .77 148 .65 148 .54	27 .623 05 .755 86 .912 34 1.100	20.2123 1 20.5776 20.9458 2 21.3168	233.0055 235.1530 237.2871 239.4094	10.0366 10.1178 10.1959	1.1110 1.1101 1.1093	1.1111 1.1102 1.1094	1.0000 1.0001 1.0001	.2728E-04 .2766E-04 .2803E-04	.3274E-01 .3348E-01 .3423E-01	.7900 .7895 .7889	
556.8	148 .77 148 .65 148 .54 148 .46 148 .39	27 .623 05 .755 86 .912 34 1.100 22 1.324	20.2123 20.5776 20.9458 21.3168 21.6905	233.0055 235.1530 237.2871 239.4094 241.5213	10.0366 10.1178 10.1959 10.2707	1.1110 1.1101 1.1093 1.1085	1.1111 1.1102 1.1094 1.1087	1.0000 1.0001 1.0001 1.0002	.2728E-04 .2766E-04 .2803E-04 .2840E-04	.3274E-01 .3348E-01 .3423E-01 .3497E-01	.7900 .7895 .7889 .7881	
556.8 566.8	148 .77 148 .65 148 .54 148 .46 148 .39	27 .623 05 .755 86 .912 34 1.100 22 1.324 25 1.589	20.2123 20.5776 20.9458 22.3168 21.6905 22.0668	233.0055 235.1530 237.2871 239.4094 241.5213 243.6246	10.0366 10.1178 10.1959 10.2707 10.3423	1.1110 1.1101 1.1093 1.1085 1.1077	1.1111 1.1102 1.1094 1.1087 1.1081	1.0000 1.0001 1.0001 1.0002 1.0003	.2728E-04 .2766E-04 .2803E-04 .2840E-04 .2877E-04	.3274E-01 .3348E-01 .3423E-01 .3497E-01	.7900 .7895 .7889 .7881 .7871	
556.8	148 .77 148 .65 148 .54 148 .46 148 .39 148 .33	27 .623 05 .755 86 .912 34 1.100 22 1.324 25 1.589 24 1.905	20.2123 1 20.5776 4 20.9458 2 21.3168 0 21.6905 8 22.0668 2 22.4455	233.0055 235.1530 237.2871 239.4094 241.5213	10.0366 10.1178 10.1959 10.2707	1.1110 1.1101 1.1093 1.1085	1.1111 1.1102 1.1094 1.1087	1.0000 1.0001 1.0001 1.0002	.2728E-04 .2766E-04 .2803E-04 .2840E-04	.3274E-01 .3348E-01 .3423E-01 .3497E-01	.7900 .7895 .7889 .7881	

TABLE IV.- Continued

s /R=37.0000											
1	٧	р	h ∕RT	а	c _p /R	γ	Υe	Z	μ	k	$^{N}_{Pr}$
381.8742	15.4476	.0230	15.6306	202.1516	8.5245	1.1328	1.1328	1.0000	.2134E-04	.2199E-01	.7814
391.8742	12.6946	.0288	15.9449	204.5881	8.6476	1.1307	1.1307	1.0000	.2178E-04	.2273E-01	.7827
401.8742	10.4525	.0358	16.2636	206.9963	8.7680	1.1287	1.1286	1.0000	2221E-04	.2347E-01	.7840
411.8742	8.6223	.0445	16.5867	209.3776	8.8858	1.1268	1.1267	1.0000	.2264E-04	.2421E-01	.7851
421.8742	7.1257	.0552	16.9140	211.7329	9.0009	1.1250	1.1249	1.0000	.2307E-04	.2495E-01	.7862
431.8742	5.8994	.0683	17.2455	214.0633	9.1132	1.1232	1.1232	1.0000	.2349E-04	.2569E-01	.7872
441.8742	4.8930	.0842	17.5811	216.3699	9.2228	1.1216	1.1216	1.0000	.2391E-04	.2643E-01	.788 0
451.8742	4.0655	.1036	17.9205	218.6536	9.3295	1.1201	1.1200	1.0000	.2432E-04	.2717E-01	.7888
461.8742	3.3838	.1273	18.2638	220.9153	9.4334	1.1186	1.1185	1.0000	.2473E-04	.2791E- 0 1	.7894
471.8742	2.8214	.1559	18.6109	223.1561	9.5344	1.1172	1.1172	1.0000	.2513E-04	.2866E-01	.7899
481.8742	2.3566	.1906	18.9615	225.3768	9.6323	1.1159	1.1159	1.0000	.2553E-04	.2940E-01	.7902
491.8742	1.9718	.2326	19.3157	227.5783	9.7273	1.1147	1.1146	1.0000	.2592E-04	.3014E-01	.7904
501.8742	1.6526	.2831	19.6732	229.7616	9.8193	1.1135	1.1135	1.0000	.2631E-04	.3088E-01	.7905
511.8742	1.3876	.3439	20.0340	231.9275	9.9082	1.1124	1.1124	1.0000	.2670E-04	.3162E-01	.7904
521.8742	1.1670	.4169	20.3980	234.0772	9.9939	1.1114	1.1114	1.0000	.2708E-04	.3236E-01	.7901
531.8742	.9832	.5044	20.7649	236.2114	10.0765 10.1559	1.1104	1.1104	1.0000	.2746E-04	.3311E-01	.7897
541.8742	.8298	-6089	21.1348	238.3314		1.1095	1.1095	1.0001	.2784E-04	.3385E-01	.7891
551.8742	.7015	.7335	21.5075	240.4383	10.2320	1.1086	1.1087	1.0002	.2821E-04	.3459E-01 .3533E-01	.7884 .7875
561.8742	.5941	.8819	21.8828	242.5331			1.1073	1.0002	.2858E-04		.7864
571.8742	•5040	1.0581	22.2607	244.6174 246.6924	10.3744 10.4406	1.1071 1.1064	1.1068	1.0002	.2895E-04 .2931E-04	.3608E-01	.7852
581.8742	.4283	1.2670	22.6409 22.9090	248.1433	10.4850	1.1060	1.1064	1.0004	.2957E-04	.3735E-01	.7842
588.8889	.3826	1.4356	22.7070	240.1433	10.4000	1.1000	111004	1.0004	127776-07	*3/3/6-01	. 1042
•											
				9	/R=37.500	D					
T	٧	p	h∕RT	а	c _p ∕R	γ	Υ _e	Z	μ	k	N _{Pr}
407.5693	15.4476	.0246	16.4472	208.3571	8.8353	1.1276	1.1275	1.0000	22445 24	22005 01	2011
417.5693	12.7538	•0305	16.7728	210.7234	8.9515	1.1257	1.1275	1.0000	.2246E-04	.2369E-01	.7846
427.5693	10.5507	.0378	17.1025	213.0643	9.0650	1.1239	1.1239	1.0000	.2289E-04 .2331E-04	.2463E-01 .2537E-01	.7858
437.5693	8.7439	.0467	17.4363	215.3809	9.1757	1.1223	1.1222	1.0000	.2373E-04	.2611E-01	.7868 .7877
447.5693	7.2594	.0575	17.7741	217.6740	9.2837	1.1207	1.1207	1.0000	.2414E-04	.2685E-01	.7885
457.5693	6.0375	.0707	18.1159	219.9447	9.3887	1.1192	1.1191	1.0000	.2455E-04	.2759E-01	.7891
467.5693	5.0302	.0867	18.4614	222.1938	9.4909	1.1178	1.1177	1.0000	.2496E-04	.2833E-01	.7897
477.5693	4.1982	.1061	18.8105	224.4221	9.5901	1.1164	1.1164	1.0000	.2536E-04	.2908E-01	.7901
487.5693	3.5099	.1295	19.1632	226.6306	9.6863	1.1151	1.1151	1.0000	.2575E-04	.2982E-01	.7903
497.5693	2.9395	.1578	19.5194	228.8200	9.7795	1.1139	1.1139	1.0000	-2614E-04	.3056E-01	.7904
507.5693	2.4660	.1919	19.8789	230.9912	9.8696	1.1128	1.1128	1.0000	.2653E-04	.3130E-01	.7904
517.5693	2.0724	.2328	20.2416	233.1451	9.9566	1.1117	1.1117	1.0000	.2692E-04	.3204E-01	.7902
527.5693	1.7446	.2819	20.6074	235.2824	10.0404	1.1107	1.1107	1.0000	.2730E-04	.3278E-01	.7899
537.5693											
547.5693	1.4711	.3407	20.9762	237.4041	10.1210	1.1097	1.1098	1.0000	. Z / DOL = U4	.3352E-01	./894
		.3407 .4108	20.9762 21.3479	237.4041 239.5110	10.1210	1.1097 1.1089	1.1098	1.0000	.2768E-04 .2805E-04	.3352E-01 .3427E-01	.7894 .7887
557. 5693	1.4711		21.3479 21.7222	239.5110 241.6040	10.1984 10.2725				.2805E-04 .2842E-04	.3427E-01	.7887
557.5693 567.5693	1.4711 1.2427	·4108	21.3479	239.5110	10.1984 10.2725 10.3432	1.1089	1.1089	1.0001	.2805E-04		
	1.4711 1.2427 1.0515 .8913 .7567	.4108 .4944	21.3479 21.7222	239.5110 241.6040	10.1984 10.2725	1.1089 1.1080	1.1089 1.1081	1.0001	.2805E-04 .2842E-04	.3427E-01 .3501E-01	.7887 .7879
567.5693	1.4711 1.2427 1.0515 .8913	.4108 .4944 .5938	21.3479 21.7222 22.0992	239.5110 241.6040 243.6842	10.1984 10.2725 10.3432	1.1089 1.1080 1.1072	1.1089 1.1081 1.1074	1.0001 1.0001 1.0001	.2805E-04 .2842E-04 .2879E-04	.3427E-01 .3501E-01 .3575E-01	.7887 .7879 .7869

TABLE IV. - Continued

	s /R=38.0000											
Ţ	V	р	h∕RT	a	c _p ∕R	Υ	Υe	Z	μ	k	^{N}Pr	
433.8989	15.4476	.0262	17.3134	214.5341	9.1353	1.1229	1.1228	1.0000	.2357E-04	.2584E-01	.7873	
443.8989	12.8155	.0323	17.6498	216.8356	9.2442	1.1212	1.1212	1.0000	.2399E-04	.2658E-01	.7882	
453.8989	10.6514	.0397	17.9901	219.1141	9.3503	1.1197	1.1197	1.0000	.2440E-04	.2732E-01	.7889	
463.8989	8.8684	.0468	18.3343	221.3707	9.4535	1.1182	1.1182	1.0000	.2481E-04	.2806E-01	.7895	
473.8989	7.3967	.0597	18.6822	223.6061	9.5538	1.1169	1.1169	1.0000	.2521E-04	.2880E-01	.7899	
483.8989	6.1800	.0730	19.0336	225.8211	9.6511	1.1156	1.1155	1.0000	.2561E-04	.2954E-01	.7902	
493.8989	5.1723	.0890	19.3886	228.0166	9.7453	1.1143	1.1143	1.0000	.260GE-04	.3028E-01	.7904	
503.8989	4.3363	.1083	19.7469	230.1933	9.8365	1.1132	1.1131	1.0000	.2639E-04	.3103E-01	.7904	
513.8989	3.6417	.1316	20.1085	232,3519	9.9246	1.1120	1.1120	1.0000	.2678E-04	.3177E-01	.7903	
523.8989	3.0636	.1594	20.4733	234.4934	10.0095	1.1110	1.1110	1.0000	.2716E-04	.3251E-01	.7900	
533.8989	2.5817	.1928	20.8411	236.6183	10.0912	1.1100	1.1100	1.0000	.2754E-04	.3325E-01	.7896	
543.8989	2.1793	.2327	21.2118	238.7274	10.1697	1.1091	1.1091	1.0000	.2791E-04	.3399E-01	.7889	
553.8989	1.8427	.2803	21.5853	240.8216	10.2449	1.1082	1.1083	1.0000	.2828E-04	.3473E-01	.7882	
563.8989	1.5608	.3369	21.9614	242.9016	10.3167	1.1074	1.1075	1.0001	.2865E-04	.3547E-01	.7872	
573.8989	1.3243	.4041	22.3401	244.9683	10.3852	1.1067	1.1068	1.0001	.2902E-04	.36216-01	.7861	
583.8989	1.1255	.4837	22.7212	247.0225	10.4503	1.1060	1.1061	1.0001	.2938E-04	.3696E-01	.7848	
588.8889	1.0383	.5289	22.9122	248.0432	10.4815	1.1056	1.1058	1.0001	·2956E-04	.3733E-01	.7841	
				S	/R=38.5000)						
T	٧	p	h/RT	a	c∕R	γ	Υe	Z	μ	k	N _{Pr}	
460.9034	15.4476	.C278	18.2309	220.6971	9.4228	1.1187	1.1186	1.0000	.2469E-04	.2784E-01	.7893	
470.9034	12.8777	.0341	18.5777	222.9385	9.5239	1.1173	1.1172	1.0000	.2509E-04	.2858E-01	.7898	
480.9034	10.7535	.0417	18.9281	225.1592	9.6221	1.1159	1.1159	1.0000	•2549E+04	.2932E-01	•7902	
490.9034	8.9953	.0509	19.2821	227.3599	9.7172	1.1147	1.1147	1.0000	.258BE-04	.3006E-01	.7904	
500.9034	7.5375	.0620	19.6394	229.5415	9.8093	1.1135	1.1135	1.0000	.2627E-04	.3080E-01	.7904	
510.9034	6.3267	.0753	20.0001	231.7047	9.8983	1.1123	1.1123	1.0000	.2606E-04	.3154E-01	•7903	
520.9034	5.3195	.0913	20.3640	233.8501	9.9841	1.1113	1.1113	1.0000	.2704E-04	.3228E-01	.7901	
530.9034	4.4803	.1105	20.7309	235.9785	10.0667	1.1103	1.1103	1.0000	.2742E-04	.3302E-01	.7897	
540.9034	3.7799	.1334	21.1008	238.0906	10.1461	1.1093	1.1093	1.0000	.2780E-04	.3377E-01	.7891	
550.9034	3.1944	.1608	21.4735	240.1871	10.2222	1.1084	1.1085	1.0000	.2817E-04	.3451E-01	.7884	
560.9034	2.7042	.1934	21.8490	242.2686	10.2950	1.1076	1.1076	1.0000	.2854E-04	.3525E-01	.7875	
570.9034	2.2931	.2321	22.2270	244.3358	10.3644	1.1068	1.1069	1.0000	.2891E-04	.3599E-01	.7864	
580.9034	1.9478	.2781	22.6074	246.3895	10.4304	1.1061	1.1062	1.0001	.2927E-04	.3673E-01	.7852	
588.8889	1.7122	.3207	22.9129	248.0203	10.4807	1.1055	1.1056	1.0001	.2956E- 04	.3732E-01	.7841	

TABLE IV. - Concluded

					s /R=39.000	٥					
T	V	p	h∕RT	а	c _∠ ∕R	γ	Υ _e	Z	μ	k	N_{Pr}
488.6317	15.4476	.0295	19.2015	226.8612	9.6958	1.1149	1.1149	1.0000	.2579E-04	.2989E-01	.7903
498.6317	12.9382	.0359	19.5581	229.0467	9.7885	1.1137	1.1137	1.0000	.2618E-04	.3063E-01	.7904
508.6317	10.8555	.0437	19.9180	231.2135	9.8782	1.1126	1.1126	1.0000	.2657E-04	.3137E-01	.7904
518.6317	9.1237	.0530	20.2812	233.3623	9.9647	1.1115	1.1115	1.0000	.2696E-04	.3211E-01	.7902
528.6317	7.6812	.0642	20.6475	235.4937	10.0480	1.1105	1.1105	1.0000	.2734E-04	.3286E-01	.7898
538.6317	6.4778	.0775	21.0167	237.6085	10.1281	1.1095	1.1095	1.0000	.2771E-04		.7893
548.6317	5.4722	•0935	21.3889	239.7072	10.2050	1.1086	1.1086	1.0000	.2809E-04	.3434E-01	.7886
558.6317	4.6305	.1125	21.7637	241.7905	10.2785	1.1078	1.1078	1.0000	.2846E-04	.3508E-01	.7877
568.6317	3.9250	.1351	22.1412	243.8590	10.3486	1.1070	1.1070	1.0000	.2882E-04	.3582E-01	.7867
578.6317	3.3326	.1619	22.5212	245.9133	10.4153	1.1062	1.1062	1.0000	.2919E-04	.3656E-01	.7855
588.£317	2.8344	.1936	22.9035	247.9542	10.4786	1.1055	1.1056	1.0000	.2955E-04	.3730E-01	.7841
588.8889	2.8226	.1945	22.9134	248.0065	10.4802	1.1055	1.1055	1.0001	•2955E-04	•3732E-01	.7840
				s	/R=39.500)					
					- 10	v	~	Z	μ	k	N _{Pr}
T	٧	р	h ∕RT	а	c _p /R	γ	Υe	_	-		Fi
517.1171	15.4476	.0312	20.2261	233.0368	9.9517	1.1116	1.1116	1.0000	.2690E-04	.3200E-01	.7902
527.1171	13.0009	.0378	20.5919	235.1704	10.0355	1.1106	1.1106	1.0000	.2728E-04	.3274E-01	.7899
537.1171	10.9609	.0457	20.9608	237.2871	10.1161	1.1096	1.1096	1.Q000	.2766E-04	.3348E-01	.7894
547.1171	9.2569	.0551	21.3325	239.3874	10.1934	1.1087	1.1087	1.0000	.2803E-04	.3422E-01	.7887
557.1171	7.8310	•0663	21.7070	241.4721	10.2674	1.1079	1.1079	1.0000	.2840E-04	.3496E-01	.7878
567.1171	6.6360	.6797	22.0841	243.5417	10.3380	1.1070	1.1071	1.0000	.2877E-04	.3571E-01	.7868
577.1171	5.6328	.0955	22.4637	245.5967	10.4052	1.1063	1.1063	1.0000	.2913E-04	•3645E-01	.7857
587.1171	4.7895	.1143	22.8457	247.6379	10.4689	1.1056	1.1056	1.0000	.2949E-04	.3719E-01	.7843
588.8689	4.6552	.1179	22.9137	247.9981	10.4799	1.1055	1.1055	1.0000	.2955E-04	.3732E-01	.7840
				 s	/R=40.0000)					
_			h (DT		c /P	γ	v	Z	μ	k	N_
T	٧	p	h / RT	а	c _p /R	4	Υe				N _{Pr}
546.4193	15.4476	.0330	21.3065	239.2396	10.1880	1.1088	1.1088	1.0000	.2800E-04	.3417E-01	.7887
556.4193	13.0657	.0397	21.6808	241.3249	10.2622	1.1079	1.1079	1.0000	.2837E-04	.3491E-01	.7879
566.4193	11.0703	.0477	22.0578	243.3948	10.3330	1.1071	1.1071	1.0000	.2874E-04	.3565E-01	.7869
576.4193	9.3956	•0572	22.4373	245.4500	10.4005	1.1063	1.1063	1.0000	.2910E-04	.3639E-01	.7857
586.4193	7.9878	•0684	22.8192	247.4911	10.4644	1.1056	1.1056	1.0000	.2946E-04	.3713E-01	.7844
588.8889	7.6774	•0715	22.9138	247.9931	10.4797	1.1054	1.1055	1.0000	.2955E-04	.3732E-01	.7840
				s	/R=40.5000	•					
T	M	n	h/RT	а	c /R	γ	v	Z	μ	k .	N
T	V	p	IIZ KI	a	c _p R	•	γ _e	-	~	N.	N _{Pr}
576.6093	15.4476	.0348	22.4446	245.4866	10.4016	1.1063	1.1063	1.0000	.2911E-04	.3641E-01	.7857
586.6093	13.1332	.0416	22.8265	247.5269	10.4655	1.1056	1.1056	1.0000	.2947E-04	.3715E-01	.7844
588.8889	12.6611	.0434	22.9139	247.9900	10.4796	1.1054	1.1054	1.0000	.2955E-04	.3732E-01	.7840

TABLE V.- THERMODYNAMIC AND TRANSPORT PROPERTIES $\text{ of } \text{ } \text{CF}_3\text{--}\text{CF}_3 \text{ } \text{ } \text{AT CONSTANT ENTROPY }$

				s	/R = 5.0000						
T	٧	p	h∕RT	a	c _p ∕R	γ	Υe	Z	μ.	k	N _{Pr}
•	m ³ ∕kg	•			ъ	•	• е		N-s∕m ²	W∕m-K	
K	m'/kg	atm		m/sec					14 2		
156.6260	1.2881	.0720	2.3365	103.0757	5.3851	1.1365	1.1313 1.1235	.9954 .9933	.8116E-05	.3401E-02	1.2140
166.6260	.8054 .5073	.1222	2.5350 2.7405	105.8407 108.4332	5.6199 5.8505	1.1311 1.1267	1.1158	.9904	.9114E-05	.5333E-02	.9445
176.6260 186.6260	.3220	.2050 .3398	2.7405	110.8174	6.0787	1.1234	1.1076	.9861	.9596E-05	.6306E-02	.8739
196.6260	.2060	.5564	3.1688	112.9399	6.3067	1.1212	1.0986	.9802	.1007E-04	.7286E-02	.8236
206.6260	.1328	.8989	3.3891	114.7242	6.5373	1.1204	1.0880	.9718	.1054E-04	.8276E-02	.7866
216.6260	.0864	1.4313	3.6110	116.0643	6.7746	1.1213	1.0751	.9601	.1101E-04	.9284E-02	.7593
226.6260	.0567	2.2418	3.8319	116.8194	7.0243	1.1245	1.0588	.9441	.1150E-04	.1032E-01	.7395 .7353
229.3276	.0507	2.5227	3.8910	116.9008	7.0949	1.1259	1.0536	.9389	.1163E-04	.1060E-01	. (373
					/R= 5.5000)					_
T	٧	D	h ∠RT	a a	r /R	Y	Y	7.	μ	k	N _{Pr}
•	•	P	(1)	u	ďp′ "	•	•е	_			
139.6025	6.3813	.0130	2.0177	98.1376	4.9677	1.1478	1.1465	.9989	.7218E-05	.1761E-02	1.9235
149.6025	3.9384	.0225	2.2034	101.2025	5.2118	1.1402	1.1383	9984	.7750E-05	.2721E-02	1.4022
159.6025	2.4483	.0387	2.3976	104.1543	5.4482	1.1336	1.1309	•9976	.8265E-05	.3682E-02	1.1552 1.0123
169.6025	1.5329	.0656	2.5997 2.8094	106.9893	5.6781 5.9028	1.1280	1.1242	.9966 .9951	.8765E-05 .9251E-05	.4644E-02 .5608E-02	.9199
179.6025 189.6025	.9665 .6138	.1099 .1824	3.0260	109.6985 112.2661	6.1234	1.1193	1.1113	.9929	9725E-05	.6574E-02	.8557
199.6025	.3925	.2993	3.2490	114.6665	6.3411	1.1161	1.1047	9898	.1019E-04	.7544E-02	.8091
209.6025	.2528	.4858	3.4774	116.8612	6.5574	1.1138	1.0974	.9855	.1065E-04	.8520E-02	.7741
219.6025	.1640	.7796	3.7100	118.7947	6.7744	1.1124	1.0891	.9794	.1110E-04	.9504E-02	.7474
229.6025	.1073	1.2356	3.9454	120.3895	6.9949	1.1123	1.0792	.9709	.1155E-04	.1050E-01	.7268
239.6025	.0767	1.9317	4.1814	121.5415	7.2225	1.1138	1.0669	.9593	.1201E-04	.1152E-01	.7114
247.7477	.0507	2.7479	4.3724	122.0606	7.4172	1.1165	1.0545	.9467	.1239E-04	.12376-01	.7021
		•				_					
T				5	/R= 6.000	D					
	W	n	L ∠DT	_	- /D			-		_	
Ţ	ν	р	h ∕RT	а	c _p ∕R	γ	Y	Z	μ	k	N_{pr}
	-	•					γ e			k	N _{Pr}
137.8380	15.2345	•0054	1.9864	97.6300	4.9222	1.1490	1.1484	.9995	.7122E-05	.1591E-02	2.0819
137.8380 147.8380 157.8360	-	•		97.6300 100.7375 103.7435		1.1490 1.1410	1.1484 1.1402	.9995 .9993	.7122E-05	.2550E-02	2.0819 1.4656
137.8380 147.8380 157.8360 167.8360	15.2345 9.3885 5.8274 3.6427	.0054 .0094 .0161 .0274	1.9864 2.1708 2.3639 2.5653	97.6300 100.7375 103.7435 106.6502	4.9222 5.1672	1.1490	1.1484	.9995	.7122E-05		2.0819
137.8380 147.8380 157.8360 167.8380 177.8380	15.2345 9.3885 5.8274 3.6427 2.2928	.0054 .0094 .0161 .0274	1.9864 2.1708 2.3639 2.5653 2.7746	97.6300 100.7375 103.7435 106.6502 109.4574	4.9222 5.1672 5.4038 5.6334 5.8568	1.1490 1.1410 1.1342 1.1282 1.1231	1.1484 1.1402 1.1331 1.1266 1.1207	.9995 .9993 .9990 .9985 .9979	.7122E-05 .7657E-05 .8174E-05 .8676E-05	.2550E-02 .3510E-02 .4471E-02 .5432E-02	2.0819 1.4656 1.1888 1.0328 .9333
137.8380 147.8380 157.8360 167.8380 177.8380 187.8380	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530	.0054 .0094 .0161 .0274 .0460	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614	4.9222 5.1672 5.4038 5.6334 5.8568 6.0749	1.1490 1.1410 1.1342 1.1282 1.1231 1.1185	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151	.9995 .9993 .9990 .9985 .9979	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9163E-05	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02	2.0819 1.4656 1.1888 1.0328 .9333 .8650
137.8380 147.8380 157.8360 167.8380 177.8380 187.8380 197.8380	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 9270	.0054 .0094 .0161 .0274 .0460 .0766	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540	4.9222 5.1672 5.4038 5.6334 5.8568 6.0749 6.2886	1.1490 1.1410 1.1342 1.1282 1.1231 1.1185 1.1146	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098	.9995 .9993 .9990 .9985 .9979 .9970	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9163E-05 .9637E-05 .1010E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02	2.0819 1.4656 1.1888 1.0328 .9333 .8650
137.8380 147.8380 157.8360 167.8380 177.8380 187.8380 197.8380 207.8380	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953	.0054 .0094 .0161 .0274 .0460 .0766 .1263	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540	4.9222 5.1672 5.4038 5.6334 5.8568 6.0749 6.2886 6.4985	1.1490 1.1410 1.1342 1.1282 1.1231 1.1185 1.1146	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044	.9995 .9993 .9990 .9985 .9979 .9970 .9956	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9163E-05 .9637E-05 .1010E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02	2.0819 1.4656 1.1888 1.0328 .9333 .8650 .8155
137.8380 147.8380 157.8380 157.8380 177.8380 187.8380 197.8380 207.8380 217.8380	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848	.0054 .0094 .0161 .0274 .0460 .0766 .1263 .2063	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399	4.9222 5.1672 5.4038 5.6334 5.8568 6.0749 6.2886 6.4985 6.7059	1.1490 1.1410 1.1342 1.1282 1.1231 1.1185 1.1146 1.1113 1.1087	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987	.9995 .9993 .9990 .9985 .9979 .9970 .9956 .9937	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9163E-05 .9637E-05 .1010E-04 .1100E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6347E-02 .7357E-02 .8323E-02	2.0819 1.4656 1.1888 1.0328 .9333 .8650 .8155 .7783
137.8380 147.8380 157.8360 167.8380 177.8380 187.8380 207.8380 217.8380 227.8380 237.8380	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848 .2505	.0054 .0094 .0161 .0274 .0460 .0766 .1263 .2063 .3335	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832 2.9252	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772	4.9222 5.1672 5.4038 5.6334 5.6368 6.0749 6.2886 6.4985 6.7059	1.1490 1.1410 1.1342 1.1282 1.1231 1.1185 1.1146 1.1113 1.1087	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0925	.9995 .9993 .9990 .9985 .9979 .9970 .9956 .9937 .9911	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9637E-05 .1010E-04 .1055E-04 .1108E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02	2.0819 1.4656 1.1888 1.0328 .9333 .8650 .8155 .7783 .7496
137.8380 147.8380 157.8360 167.8360 177.8380 187.8380 207.8380 227.8380 227.8380 237.8380 247.8380	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848	.0054 .0094 .0161 .0274 .0460 .0766 .1263 .2063	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399	4.9222 5.1672 5.4038 5.6334 5.8568 6.0749 6.2886 6.4985 6.7059	1.1490 1.1410 1.1342 1.1282 1.1231 1.1185 1.1146 1.1113 1.1087	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0925 1.0854	.9995 .9993 .9990 .9985 .9979 .9970 .9956 .9937	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9163E-05 .1010E-04 .1055E-04 .1100E-04 .1143E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02 .1027E-01	2.0819 1.4656 1.1888 1.0328 9333 .8650 .8155 .7783 .7496 .7271 .7092
137.8380 147.8380 157.8360 167.8360 177.8360 187.8380 207.8380 217.8380 227.6380 237.8380 247.6380 247.6380 257.6380	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 9270 .5953 .3848 .2505 .1641 .1083	.0054 .0094 .0161 .0274 .0460 .0766 .1263 .2063 .3335 .5340 .8461 1.3259 2.0523	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832 3.9252 4.1715	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851	4.9222 5.1672 5.4038 5.6334 5.8568 6.0749 6.2886 6.4985 6.7059 6.9117 7.1178	1.1490 1.1410 1.1342 1.1282 1.1231 1.1185 1.1146 1.1113 1.1087 1.1067	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0925	.9995 .9993 .9990 .9985 .9979 .9970 .9956 .9937 .9911 .9873	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9637E-05 .1010E-04 .1005E-04 .1100E-04 .1107E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02 .1027E-01 .11225E-01	2.0819 1.4656 1.1888 1.0328 .9333 .8650 .8155 .7783 .7496 .7271 .7092 .6952
137.8380 147.8380 157.8360 167.8360 177.8380 187.8380 207.8380 227.8380 227.8380 237.8380 247.8380	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 9270 5.953 3.848 .2505 1.641	.0054 .0094 .0161 .0274 .0460 .0766 .1263 .2C63 .3335 .5340 .8461	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832 3.9252 4.1715	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976	4.9222 5.1672 5.4038 5.6334 5.8568 6.0749 6.2886 6.4985 6.7059 6.9117 7.1178 7.3264	1.1490 1.1410 1.1342 1.1282 1.1231 1.1185 1.1146 1.1113 1.1087 1.1067 1.1055 1.1052	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0925 1.0854 1.0769	.9995 .9993 .9990 .9985 .9979 .9970 .9956 .9937 .9911 .9873	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9163E-05 .1010E-04 .1055E-04 .1100E-04 .1143E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02 .1027E-01	2.0819 1.4656 1.1888 1.0328 9333 .8650 .8155 .7783 .7496 .7271 .7092
137.8380 147.8380 157.8360 167.8360 177.8360 187.8380 207.8380 217.8380 227.6380 237.8380 247.6380 247.6380 257.6380	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 9270 .5953 .3848 .2505 .1641 .1083	.0054 .0094 .0161 .0274 .0460 .0766 .1263 .2063 .3335 .5340 .8461 1.3259 2.0523	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4664 3.6832 4.1715 4.6205 4.6205 4.8889	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.4038 5.6334 5.6334 6.0749 6.2886 6.7059 6.9117 7.1178 7.3264 7.5405 7.7366	1.1490 1.1410 1.1282 1.1282 1.1281 1.1185 1.1146 1.113 1.1087 1.1067 1.1055 1.1052 1.1063	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0925 1.0854 1.0769 1.0665 1.0551	.9995 .9993 .9990 .9985 .9979 .9970 .9956 .9937 .9911 .9873 .9821 .9749	.7122E-05 .7657E-05 .8676E-05 .8676E-05 .9163E-05 .1010E-04 .1100E-04 .1143E-04 .1147E-04 .1230E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02 .1027E-01 .1125E-01 .1326E-01	2.0819 1.4656 1.1888 1.0328 .9333 .8650 .8155 .7783 .7496 .7271 .7092 .6952 .6845
137.8380 147.8380 157.8380 167.8380 177.8380 187.8380 207.8380 217.8380 227.8380 227.8380 247.8380 257.6380 257.6380	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848 .2505 .1083 .0721 .0507	. 0054 .0094 .0161 .0274 .0460 .0766 .1263 .2063 .3335 .5340 .8461 1.3259 2.0523 2.9778	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4664 3.6832 4.1715 4.6205 4.6205 4.8889	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.4038 5.6334 5.6334 6.0749 6.2886 6.7059 6.9117 7.1178 7.3264 7.5405 7.7366	1.1490 1.1410 1.1282 1.1282 1.1281 1.1185 1.1146 1.113 1.1087 1.1067 1.1055 1.1052 1.1063	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0925 1.0854 1.0769 1.0665 1.0551	.9995 .9993 .9990 .9985 .9970 .9956 .9937 .9911 .9873 .9821 .9749 .9533	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9163E-05 .1010E-04 .1055E-04 .1100E-04 .1143E-04 .1230E-04 .1230E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02 .1027E-01 .1125E-01 .1225E-01 .1418E-01	2.0819 1.4656 1.1888 1.0328 .8650 .8155 .7783 .7496 .7271 .7092 .6952 .6845
137.8380 147.8380 157.8360 167.8360 177.8360 187.8380 207.8380 217.8380 227.6380 237.8380 247.6380 247.6380 257.6380	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 9270 .5953 .3848 .2505 .1641 .1083	.0054 .0094 .0161 .0274 .0460 .0766 .1263 .2063 .3335 .5340 .8461 1.3259 2.0523	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4664 3.6832 4.1715 4.6205 4.6205 4.8889	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.4038 5.6334 5.6334 6.0749 6.2886 6.7059 6.9117 7.1178 7.3264 7.5405 7.7366	1.1490 1.1410 1.1282 1.1282 1.1281 1.1185 1.1146 1.113 1.1087 1.1067 1.1055 1.1052 1.1063	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0925 1.0854 1.0769 1.0665 1.0551	.9995 .9993 .9990 .9985 .9979 .9970 .9956 .9937 .9911 .9873 .9821 .9749	.7122E-05 .7657E-05 .8676E-05 .8676E-05 .9163E-05 .1010E-04 .1100E-04 .1143E-04 .1147E-04 .1230E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02 .1027E-01 .1125E-01 .1326E-01	2.0819 1.4656 1.1888 1.0328 .9333 .8650 .8155 .7783 .7496 .7271 .7092 .6952 .6845
137.8380 147.8380 157.8380 167.8380 177.8380 187.8380 207.8380 217.8380 227.8380 227.8380 247.8380 257.6380 257.6380	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848 .2505 .1083 .0721 .0507	. 0054 .0094 .0161 .0274 .0460 .0766 .1263 .2063 .3335 .5340 .8461 1.3259 2.0523 2.9778	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.2156 3.4464 3.8832 4.1715 4.4705 4.6704 4.8889	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.1672 5.4038 5.6334 5.8568 6.0749 6.2886 6.7059 6.9117 7.1178 7.3264 7.5405 7.7366	1.1490 1.1410 1.1342 1.1282 1.1281 1.1185 1.1146 1.11087 1.1067 1.1055 1.1052 1.1063 1.1086	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0854 1.0769 1.0665 1.0551	. 9995 . 9993 . 9990 . 9985 . 9970 . 9956 . 9937 . 9911 . 9873 . 9821 . 9749 . 9649 . 9533	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9163E-05 .9037E-05 .1010E-04 .1100E-04 .1100E-04 .1143E-04 .1230E-04 .1275E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02 .1027E-01 .1125E-01 .125E-01 .1418E-01	2.0819 1.4656 1.1888 1.0328 .9333 .8650 .8155 .77496 .7271 .7092 .6952 .6845 .6776
137.8380 147.8380 157.8380 167.8380 177.8380 187.8380 207.8380 217.8380 227.8380 237.8380 247.8380 247.8380 257.6380 266.6207	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848 .2505 .1641 .1083 .0721	.0054 .0094 .0161 .0274 .0460 .0766 .1263 .2C63 .3335 .5340 .8461 1.3259 2.0523 2.9778	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4664 3.6832 4.1715 4.6205 4.6205 4.8889	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.1672 5.4038 5.6334 5.8568 6.0749 6.2886 6.7059 6.9117 7.1178 7.3264 7.7366 /R= 6.5001 C /R	1.1490 1.1342 1.1282 1.1281 1.1185 1.1146 1.1113 1.1067 1.1055 1.1055 1.1063 1.1063	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0955 1.0854 1.0769 1.0665 1.0551	. 9995 . 9993 . 9990 . 9985 . 9970 . 9956 . 9937 . 9911 . 9821 . 9749 . 9533	.7122E-05 .7657E-05 .8676E-05 .8676E-05 .9163E-05 .9037E-05 .1010E-04 .1100E-04 .1143E-04 .1143E-04 .1230E-04 .1275E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02 .1027E-01 .1125E-01 .1225E-01 .1418E-01	2.0819 1.4656 1.1888 1.0328 .8650 .8155 .7496 .7271 .7092 .6952 .6976
137.8380 147.8380 157.8380 157.8380 177.8380 187.8380 297.8380 227.8380 227.8380 227.8380 247.8380 257.6380 257.6380 257.6380 257.6380 266.6207	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848 .2505 .1641 .1083 .0721 .0507	0054 .0094 .0161 .0274 .0460 .0766 .1263 .2063 .3335 .5340 .8461 1.3259 2.0523 2.9778	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832 4.1715 4.4205 4.6704 4.8889	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.1672 5.4038 5.6334 5.8568 6.0749 6.2886 6.7059 6.9117 7.3264 7.3264 7.3265 7.7366 /R= 6.500 Cp	1.1490 1.1410 1.1342 1.1282 1.1281 1.1185 1.1146 1.1113 1.1087 1.1055 1.1055 1.1055 1.1053 1.1063 1.1086	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.0945 1.0955 1.0855 1.0769 1.0665 1.0551	.9995 .9993 .9990 .9985 .9970 .9956 .9971 .9873 .9873 .9873 .9749 .9533	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9163E-05 .9637E-05 .1010E-04 .1055E-04 .1143E-04 .1143E-04 .1230E-04 .1275E-04 .1314E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02 .1027E-01 .1125E-01 .125E-01 .1418E-01	2.0819 1.4656 1.1888 1.0328 .8650 .8155 .7783 .7496 .7271 .7092 .6845 .6776 NPr
137.8380 147.8380 157.8380 167.8380 177.8380 187.8380 207.8380 217.8380 227.8380 227.8380 247.8380 247.8380 257.6380 257.6380 154.1178 164.1178	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848 .2505 .1641 .1083 .0721 .0507	0054 -0094 -0161 -0274 -0460 -0766 -1263 -263 -3335 -5340 -340 -10523 2.0523 2.9778	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832 4.1715 4.4205 4.6704 4.8889 h / RT 2.2915 2.4901 2.6969	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.1672 5.4038 5.6334 5.6366 6.0749 6.2886 6.7059 6.71178 7.3264 7.3264 7.7366 7.7366	1.1490 1.1342 1.1231 1.1185 1.1146 1.1113 1.1087 1.1055 1.1055 1.1055 1.1055 1.1055 1.1055 1.1036	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0854 1.0769 1.0665 1.0551	. 9995 . 9993 . 9990 . 9985 . 9970 . 9956 . 9937 . 9911 . 9873 . 9821 . 9749 . 9533 Z 	.7122E-05 .7657E-05 .8676E-05 .8676E-05 .9163E-05 .1010E-04 .1100E-04 .1143E-04 .1143E-04 .1230E-04 .1275E-04 .1314E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02 .1027E-01 .1125E-01 .1225E-01 .1326E-01 .1418E-01	2.0819 1.4656 1.1888 1.0328 .8650 .8155 .7496 .7271 .6952 .6876 NPr
137.8380 147.8380 157.8380 157.8380 177.8380 187.8380 207.8380 227.8380 227.8380 237.8380 247.8380 257.6380 266.6207	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 9.270 .5953 .3848 .2505 .1641 .1083 .0721 .0507	0054 0094 0161 0274 0460 0766 1263 2263 3335 5340 8461 1.3259 2.0523 2.9778	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.2156 3.4464 3.8832 4.1715 4.4205 4.6704 4.8889	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.1672 5.4038 5.6334 5.8564 6.0749 6.2886 6.7059 6.9117 7.1178 7.3264 7.5405 7.7366 /R= 6.5001 C /R 5.3154 5.5569 5.7717 5.9905 6.2039	1.1490 1.1342 1.1282 1.1282 1.1185 1.1146 1.113 1.1087 1.1055 1.1052 1.1063 1.1086	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0854 1.0769 1.0855 1.0551	. 9995 . 9993 . 9990 . 9985 . 9970 . 9956 . 9937 . 9873 . 9873 . 9874 . 9749 . 9533 Z 	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9163E-05 .9637E-05 .1010E-04 .1100E-04 .1100E-04 .1143E-04 .1143E-04 .1230E-04 .1275E-04 .1314E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02 .1027E-01 .1125E-01 .1225E-01 .1326E-01 .1418E-01	2.0819 1.4656 1.1888 1.0328 .8650 .8155 .7783 .7496 .7271 .6952 .6845 .6776 NPr 1.2718 1.0820 .9656 .8319
137.8380 147.8380 157.8380 157.8380 177.8380 187.8380 207.8380 217.8380 227.8380 227.8380 247.83	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848 .2505 .1641 .1083 .0721 .0507	0054 .0094 .0161 .0274 .0460 .0766 .1263 .2063 .3333 .5340 .8461 1.3259 2.0523 2.9778	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832 4.1715 4.4205 4.6704 4.8889 h / RT 2.2915 2.4916 3.1340 3.3636	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.1672 5.4038 5.6334 5.8568 6.0749 6.2886 6.7059 6.9117 7.3264 7.3265 7.7366 /R= 6.5001 C /R 5.3154 5.5469 6.2039 6.4126	1.1490 1.1342 1.1282 1.1281 1.1185 1.1146 1.1113 1.1087 1.1055 1.1055 1.1055 1.1063 1.1086	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0955 1.0854 1.0769 1.0665 1.0551	.9995 .9993 .9990 .9985 .9970 .9956 .9937 .9911 .9821 .9749 .9533 Z	.7122E-05 .7657E-05 .8676E-05 .8676E-05 .9963E-05 .9037E-05 .1010E-04 .1055E-04 .1143E-04 .1143E-04 .1230E-04 .1275E-04 .1314E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .1027E-01 .1125E-01 .1225E-01 .1418E-01 .4112E-02 .6032E-02 .6032E-02 .7955E-02	2.0819 1.4656 1.1888 1.0323 .8650 .8155 .7496 .7271 .7496 .7271 .6952 .6976 NPr 1.2718 1.0820 .9656 .8875 .8319
137.8380 147.8380 157.8380 167.8380 177.8380 207.8380 217.8380 227.8380 227.8380 247.83	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848 .2505 .1083 .0721 .0507 V	0054 0094 00161 00274 00460 00766 11263 1263 13335 13340 1461 13259 2.05523 2.9778	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832 3.9252 4.1715 4.6205 4.6704 4.8889 h / RT 2.2915 2.4901 2.6969 2.9116 3.1340 3.3636 3.6002	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.1672 5.4038 5.6334 5.6334 6.0749 6.2886 6.7059 6.9117 7.1178 7.3264 7.5405 7.7366 C R 5.3154 5.5469 5.7717 5.905 6.6126 6.6171	1.1490 1.1342 1.1231 1.1185 1.1146 1.1113 1.1087 1.1055 1.1052 1.1063 1.1086 Y 1.1364 1.1301 1.1245 1.1196 1.1192 1.1114 1.1080	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.10987 1.0925 1.0854 1.0769 1.06551 2.08551	.9995 .9993 .9990 .9985 .9970 .9956 .9937 .9911 .9873 .9821 .9749 .9533	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9637E-05 .1010E-04 .11055E-04 .1100E-04 .1143E-04 .1230E-04 .1230E-04 .1314E-04	.2550E-02 .3510E-02 .3510E-02 .5471E-02 .5394E-02 .6394E-02 .8323E-02 .9293E-02 .1027E-01 .1125E-01 .1225E-01 .1326E-01 .1418E-01 .4112E-02 .5072E-02 .6032E-02 .6032E-02 .6993E-02	2.0819 1.4656 1.1888 1.0328 .8650 .8155 .77496 .7271 .6952 .6845 .6776 NPr 1.2718 1.0820 .8675 .8319 .7587
137.8380 147.8380 157.8360 167.8380 187.8380 187.8380 207.8380 227.8380 227.8380 227.8380 248.1178 148.1178 148.1178 148.1178 148.1178 148.1178 248.1178 248.1178 248.1178 248.1178	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848 .2505 .1641 .1083 .0721 .0507 V 15.2341 9.4963 5.9604 3.7666 2.3960 1.5339 .9882 .6406	0054 0094 00161 00274 0460 0766 1263 2263 3333 5340 8461 13259 2.0523 2.9778 p	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832 4.1715 4.4205 4.6704 4.8889 h / RT 2.2915 2.4901 2.6969 2.9116 3.3636 3.6002 3.3636 3.6002	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.1672 5.4038 5.6334 5.8366 6.0749 6.2886 6.7059 6.9117 7.1178 7.3264 7.5405 7.7366 /R= 6.5001 C /R 5.3154 5.5569 5.7717 5.9905 6.2039 6.4126 6.6171 6.8181	1.1490 1.1342 1.1282 1.1282 1.1185 1.1185 1.1167 1.1057 1.1052 1.1063 1.1086 7 1.1364 1.1301 1.1245 1.1152 1.1152 1.1156 1.1152 1.1156 1.1150 1.1155	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.0925 1.0854 1.0769 1.0665 1.0551 Y e 1.1360 1.1294 1.1236 1.1182 1.1183 1.1086 1.1041 1.0995	. 9995 . 9993 . 9990 . 9985 . 9970 . 9956 . 9937 . 9873 . 9871 . 9749 . 9533 Z 	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9163E-05 .9637E-05 .1010E-04 .11055E-04 .1143E-04 .1143E-04 .1147E-04 .1230E-04 .1275E-04 .1314E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02 .1027E-01 .1125E-01 .1225E-01 .1326E-01 .1418E-01	2.0819 1.4656 1.1888 1.0328 .8650 .8155 .7496 .7271 .7092 .6852 .6776 NPF 1.2718 1.0820 .9656 .8873 .8319 .7337
137.8380 147.8380 157.8380 167.8380 177.8380 187.8380 207.8380 217.8380 227.8380 227.8380 247.83	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848 .2505 .1641 .1083 .0721 .0507 V 15.2341 9.4963 5.9604 3.7666 2.3960 1.5339 .9882 .6406 .4179	0054 0074 00161 00274 00460 00766 11263 12063 13335 15340 18461 1.3259 2.05523 2.9778	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.24564 3.6832 4.1715 4.4205 4.6704 4.8889 h / RT 2.2915 2.4901 2.6969 2.9116 3.1340 3.6363 3.6302 3.4433 4.0923	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.1672 5.4038 5.6334 5.6366 6.7059 6.7059 6.9117 7.1178 7.3264 7.5405 7.7366 CP 8.3154 5.5469 5.7717 5.9905 6.4126 6.6171 6.8181 7.0163	1.1490 1.1342 1.1282 1.1281 1.1185 1.1146 1.1113 1.1087 1.1055 1.1055 1.1052 1.1063 1.1086 2 1.1364 1.1301 1.1245 1.1196 1.11196 1.11196 1.11196 1.11080 1.1051	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0854 1.0769 1.0665 1.0551 2 e 1.1360 1.1294 1.1236 1.1132 1.1086 1.1182 1.1086 1.1041 1.0947	.9995 .9993 .9998 .9985 .9970 .9956 .9937 .9821 .9821 .9749 .9533	.7122E-05 .7657E-05 .8676E-05 .8676E-05 .9163E-05 .9037E-05 .1010E-04 .1005E-04 .1143E-04 .1147E-04 .1230E-04 .1275E-04 .1314E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .9293E-02 .1027E-01 .1125E-01 .1125E-01 .1225E-01 .1418E-01 .418E-01 .418E-02 .5072E-02 .6032E-02 .6993E-02 .7955E-02 .9883E-02	2.0819 1.4656 1.1888 1.0328 .8650 .8155 .7496 .7271 .6952 .6976 .6776 NPr 1.2718 1.0820 .8875 .8319 .7587 .7138
137.8380 147.8380 157.8380 167.8380 187.8380 217.8380 227.8380 227.8380 227.8380 247.8380 247.8380 247.8380 247.8380 247.18380 247.18380 247.18380 247.18380 247.18380 247.18380 247.18380 247.18380 247.18380 247.18380 247.18380 247.1178 164.1178 174.1178 184.1178 244.1178 244.1178 244.1178 244.1178 244.1178 254.1178	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848 .2505 .1641 .1083 .0721 .0507 V 15.2341 9.4963 5.9604 3.7666 2.3960 1.5339 .9882 .6406	0054 .0094 .0161 .0274 .0460 .0766 .1263 .2063 .3335 .5340 .8461 .3259 2.0523 2.9778 p	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832 4.1715 4.4205 4.6704 4.8889 h / RT 2.2915 2.4916 3.1340 3.6002 3.6463 4.0923 4.3465	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.1672 5.4038 5.6334 5.8366 6.0749 6.2886 6.7059 6.9117 7.1178 7.3264 7.5405 7.7366 /R= 6.5001 C /R 5.3154 5.5569 5.7717 5.9905 6.2039 6.4126 6.6171 6.8181	1.1490 1.1342 1.1231 1.1135 1.1146 1.1131 1.1087 1.1055 1.1052 1.1063 1.1086 7 1.1364 1.1301 1.1245 1.1152 1.1114 1.1080 1.1051 1.1051 1.1071	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.0987 1.0854 1.0769 1.0655 1.0551 Ye 1.1360 1.1294 1.1236 1.1182 1.1183 1.1086 1.1182 1.1183 1.10895 1.0995	. 9995 . 9993 . 9990 . 9985 . 9970 . 9956 . 9937 . 9911 . 9873 . 9821 . 9749 . 9533 . 9749 . 9994 . 9998 . 9988 . 9988 . 9988 . 9988 . 9988 . 9988	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9637E-05 .1010E-04 .1100E-04 .1100E-04 .1100E-04 .1143E-04 .1230E-04 .1230E-04 .12314E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .1027E-01 .1125E-01 .1225E-01 .1326E-01 .1418E-01 .4112E-02 .5072E-02 .6032E-02 .6032E-02 .7955E-02 .8918E-02 .9883E-02	2.0819 1.4656 1.1888 1.0328 .8650 .8155 .7496 .7271 .6952 .68476 NPr 1.2718 1.0820 .9655 .8319 .7905 .7937 .7337 .71387
137.8380 147.8380 157.8380 167.8380 177.8380 187.8380 207.8380 217.8380 227.8380 247.8380 247.8380 247.8380 247.8380 247.8380 247.8380 247.8380 241.83	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848 .2505 .1641 .1083 .0721 .0507 V 15.2341 9.4963 5.9604 2.3960 1.5339 .9882 .6406 .4179 .2743 .1812 .1205	D .0054 .0094 .0161 .0274 .0460 .0766 .1263 .3335 .5340 .8461 1.3259 2.0523 2.9778 D .0060 .0103 .0174 .0290 .0481 .0789 .1284 .2069 .3307 .5237 .8217	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832 4.1715 4.4205 4.6704 4.8889 h / RT 2.2915 2.4901 2.6969 2.9116 3.1340 3.3636 3.1340 3.3636 3.1340 3.36365 4.6051	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.1672 5.4038 5.6334 5.6334 6.2886 6.7059 6.9117 7.1178 7.3264 7.7366 7.7366 7.7366 7.7366 7.7366 7.7366 6.6171 6.8181 7.0163 7.4083 7.4083 7.6052	1.1490 1.1342 1.1282 1.1281 1.1185 1.1146 1.1113 1.1087 1.1055 1.1055 1.1052 1.1063 1.1086 2 1.1364 1.1301 1.1245 1.1196 1.11196 1.11196 1.11196 1.11080 1.1051	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0854 1.0769 1.0665 1.0551 2 e 1.1360 1.1294 1.1236 1.1132 1.1086 1.1182 1.1086 1.1041 1.0947	.9995 .9993 .9998 .9985 .9970 .9956 .9937 .9821 .9821 .9749 .9533	.7122E-05 .7657E-05 .8676E-05 .8676E-05 .9163E-05 .9037E-05 .1010E-04 .1005E-04 .1143E-04 .1147E-04 .1230E-04 .1275E-04 .1314E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .9293E-02 .1027E-01 .1125E-01 .1125E-01 .1225E-01 .1418E-01 .418E-01 .418E-02 .5072E-02 .6032E-02 .6993E-02 .7955E-02 .9883E-02	2.0819 1.4656 1.1888 1.0328 .8650 .8155 .7496 .7271 .6952 .6976 .6776 NPr 1.2718 1.0820 .8875 .8319 .7587 .7138
137.8380 147.8380 157.8360 167.8380 187.8380 197.8380 207.8380 227.8380 227.8380 227.8380 247.8380 247.8380 247.8380 247.8380 247.8380 247.8380 241.178 164.1178 174.1178 194.1178 204.1178 224.1178 224.1178 234.1178 244.1178 244.1178 254.1178 254.1178	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 9270 .5953 .3848 .2505 .1641 .1083 .0721 .0507 V V 15.2341 9.4963 5.9604 3.7666 2.3960 1.5339 .9882 .6406 .4179 .2743 .1812 .1205 .0307	0054 .0094 .0161 .0274 .0460 .0766 .1263 .2263 .3335 .5340 .8461 .3259 2.0523 2.9778 p .0060 .0103 .0174 .0290 .0481 .0789 .1284 .2069 .3307 .5237 .8217 .9622	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832 4.1715 4.4205 4.6704 4.8889 h / RT 2.2915 2.4901 2.6969 2.9116 3.3636 3.6002 3.3636 3.6002 3.4334 4.9465 4.6051 4.6669 5.1303	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025 3 4 102.6768 105.6403 108.5144 111.3011 114.0005 116.6097 119.1223 121.5268 123.8051 125.9308 127.8659 129.5581 130.9383	4.9222 5.1672 5.4038 5.6334 6.0749 6.2886 6.7059 6.9117 7.1178 7.3264 7.5405 7.7366 Cp 5.3154 5.5669 5.7717 5.9905 6.6126 6.6171 6.8181 7.0163 7.1226 7.4083 7.6052 7.8056	1.1490 1.1410 1.1342 1.1282 1.1281 1.1185 1.1146 1.113 1.1087 1.1055 1.1052 1.1063 1.1080 1.1245 1.1152 1.114 1.1080 1.1051 1.1051 1.1009 1.0996 1.0996 1.0996	1.1484 1.1402 1.1331 1.1266 1.1207 1.1098 1.1044 1.0987 1.0854 1.0769 1.0655 1.0551 Y e 1.1360 1.1294 1.1236 1.1182 1.1081 1.1081 1.1081 1.10895 1.0	.9995 .9993 .9990 .9985 .9970 .9950 .9937 .9911 .9821 .9749 .9533 Z .9996 .9998 .9983 .9975 .9988 .9975 .9989 .9989 .9989 .9989 .9989 .9989 .9989 .9989 .9989 .9989 .9989	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9163E-05 .9637E-05 .1010E-04 .1055E-04 .1108E-04 .1143E-04 .1143E-04 .1230E-04 .1275E-04 .1314E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .9293E-02 .1027E-01 .1125E-01 .1225E-01 .1326E-01 .1418E-01 .4112E-02 .6032E-02 .6993E-02 .6993E-02 .9883E-02 .9883E-02 .1085E-01 .1188E-01	2.0819 1.4656 1.1888 1.03323 .8650 .8155 .74291 .7092 .6952 .6876 NPF 1.2718 1.0820 .9656 .8875 .8319 .7587 .7587 .7587 .7138 .6946
137.8380 147.8380 157.8380 167.8380 177.8380 187.8380 207.8380 217.8380 227.8380 247.8380 247.8380 247.8380 247.8380 247.8380 247.8380 247.8380 241.83	15.2345 9.3885 5.8274 3.6427 2.2928 1.4530 .9270 .5953 .3848 .2505 .1641 .1083 .0721 .0507 V 15.2341 9.4963 5.9604 2.3960 1.5339 .9882 .6406 .4179 .2743 .1812 .1205	D .0054 .0094 .0161 .0274 .0460 .0766 .1263 .3335 .5340 .8461 1.3259 2.0523 2.9778 D .0060 .0103 .0174 .0290 .0481 .0789 .1284 .2069 .3307 .5237 .8217	1.9864 2.1708 2.3639 2.5653 2.7746 2.9916 3.2156 3.4464 3.6832 4.1715 4.4205 4.6704 4.8889 h / RT 2.2915 2.4901 2.6969 2.9116 3.1340 3.3636 3.1340 3.3636 3.1340 3.36365 4.6051	97.6300 100.7375 103.7435 106.6502 109.4574 112.1614 114.7540 117.2210 119.5399 121.6772 123.5851 125.1976 126.4269 127.1025	4.9222 5.1672 5.4038 5.6334 5.6334 6.2886 6.7059 6.9117 7.1178 7.3264 7.7366 7.7366 7.7366 7.7366 7.7366 7.7366 6.6171 6.8181 7.0163 7.4083 7.4083 7.6052	1.1490 1.1410 1.1410 1.1342 1.1231 1.1185 1.1146 1.1067 1.1055 1.1052 1.1063 1.1086 Y 1.1364 1.1301 1.1245 1.1196 1.1196 1.1196 1.1196 1.1196 1.1080 1.1027 1.1080 1.10996 1.09992	1.1484 1.1402 1.1331 1.1266 1.1207 1.1151 1.1098 1.1044 1.0987 1.0854 1.0769 1.0665 1.0551 2 e 1.1360 1.1294 1.1236 1.1182 1.1133 1.1086 1.1182 1.10947 1.0947 1.0895 1.0936 1.0767	. 9995 . 9993 . 9998 . 9970 . 9956 . 9937 . 9911 . 9873 . 9821 . 9749 . 9533 . 9749 . 9533 . 9994 . 9998 . 9988 . 9988 . 9988 . 9989 . 9989	.7122E-05 .7657E-05 .8174E-05 .8676E-05 .9637E-05 .1010E-04 .11055E-04 .1109E-04 .1143E-04 .1230E-04 .1230E-04 .1314E-04 .1314E-04 .1314E-04 .1314E-04 .1314E-04 .1314E-04 .1314E-04 .1314E-04	.2550E-02 .3510E-02 .4471E-02 .5432E-02 .6394E-02 .7357E-02 .8323E-02 .1027E-01 .1125E-01 .1225E-01 .1326E-01 .1418E-01 .4112E-02 .5072E-02 .6032E-02 .7955E-02 .8918E-02 .9883E-02 .1085E-01 .1183E-01 .1281E-01	2.0819 1.4656 1.1888 1.0328 .9333 .8650 .8155 .7496 .7271 .6952 .6876 NPr 1.2718 1.0820 .98675 .8319 .7987 .7138 .6977 .6846

TABLE V.- Continued

s/R= 7.0000												
T	٧	p	h∕RT	a	c _p /R	γ	Υe	Z	μ	k	N _{Pr}	
170.7907 180.7907 190.7907 200.7907 210.7907 220.7907 230.7907 240.7907 250.7907 260.7907 270.7907 280.7907 290.7907 300.7907	15.2368 9.6057 6.0958 3.8933 2.5020 1.6178 1.0522 4.530 2.999 1997 1338 0.903 0.0613	.0067 .0112 .0186 .0306 .0500 .C810 .1300 .2071 .3272 .5127 .7967 1.2272 1.8723 2.8264 3.4528	2.6276 2.8400 3.0602 3.2880 3.5231 3.7652 4.0140 4.2691 4.5300 5.3409 5.6171 5.6938 6.0306	107.6037 110.4369 113.1913 115.8688 118.4694 120.9910 123.4284 125.7722 128.6082 130.1153 132.0634 133.8110 135.3033 136.4700 136.9025	5.6965 5.9168 6.1312 6.3404 6.5448 6.7447 7.3227 7.3227 7.5101 7.6963 7.8826 8.0709 8.2636 8.3620	1.1261 1.1209 1.1163 1.1122 1.1085 1.1052 1.1023 1.0997 1.0976 1.0958 1.0946 1.0940 1.0951 1.0951	1.1257 1.1204 1.1155 1.1110 1.1069 1.0990 1.0951 1.0910 1.0867 1.0817 1.0760 1.0606 1.0606	.9997 .9995 .9993 .9985 .9970 .9979 .9970 .9958 .9917 .9883 .9888 .9775 .9691	.8819E-05 .930ZE-05 .9771E-05 .1023E-04 .1067E-04 .111E-04 .1154E-04 .1237E-04 .1278E-04 .1318E-04 .1359E-04 .1399E-04	.4751E-02 .5711E-02 .6671E-02 .85592E-02 .9553E-02 .1052E-01 .1148E-01 .1245E-01 .1342E-01 .1539E-01 .1539E-01	.9989 .9104 .8484 .8028 .7681 .7194 .7018 .6754 .66574 .65574 .6509 .6460	
				s	/R= 7.500	0						
T	V	р	h∕RT	a	c _p R	γ	Ye.	Z	μ	k	N _{Pr}	
187.8744 197.8744 207.8744 217.8744 227.8744 237.8744 257.8744 257.8744 267.8744 277.8744 307.8744 307.8744 317.8744 326.0333	15.2403 9.7144 6.2308 4.0207 2.6098 1.7037 1.1185 .7383 .4902 .3272 .2196 .1483 .1007 .0689 .0508	.0073 .0121 .0198 .0322 .0519 .0829 .1314 .2069 .3233 .5015 .7720 1.1788 1.7847 2.6768 3.6976	2.9956 3.2214 3.4547 3.9953 3.9429 4.1972 4.4550 4.9976 5.2754 5.5578 5.8437 6.1322 6.4217 6.6575	112.4282 115.1435 117.7892 120.3670 122.8769 125.3172 127.6836 129.9689 132.1616 134.2447 136.1945 137.9783 139.5529 140.8627 141.6885	0.0683 6.2786 6.4637 6.6840 7.0715 7.2593 7.4437 7.6249 7.8038 7.9810 8.1575 8.3349 8.6656	1.1175 1.1131 1.1092 1.1057 1.1026 1.0997 1.0949 1.0930 1.0914 1.0902 1.0895 1.0893 1.0899	1.1171 1.1127 1.1086 1.1048 1.1012 1.0978 1.0945 1.0911 1.0877 1.0839 1.0751 1.0694 1.0694 1.0695	.9997 .9996 .9994 .9988 .9983 .9976 .9965 .9951 .9932 .9905 .9869 .9819 .9752	.9635E-05 .1009E-04 .1054E-04 .1098E-04 .1141E-04 .1124E-04 .1224E-04 .1305E-04 .1344E-04 .1383E-04 .1422E-04 .1461E-04 .1501E-04	.6390E-02 .7349E-02 .8309E-02 .9269E-02 .1023E-01 .1119E-01 .1312E-01 .1409E-01 .1506E-01 .1702E-01 .1802E-01 .1903E-01	.8644 .8147 .7773 .7481 .7250 .7062 .6908 .6780 .6581 .6504 .6440 .6387 .6347	
-	.,		ь .D.т		/R= 8.000	-		•				
Ţ	V	р	h∕RT	а	c _p /R	γ	Υ _e	Z	μ	k	N _{Pr}	
205.3798 225.3798 225.3798 245.3798 245.3798 255.3798 275.3798 275.3798 275.3798 275.3798 275.3798 305.3798 305.3798 305.3798 305.3798 305.3798 305.3798	15.2438 9.8204 6.3641 4.1479 2.7185 1.7913 1.1869 .7904 .5291 .3561 .2409 .1639 .1121 .0772 .0535	.0080 .0130 .0210 .0337 .0536 .0846 .1327 .2C65 .3194 .4904 .7478 1.1320 1.7004 2.5327 3.7378 3.9483	3.3962 3.6813 4.1344 4.3943 4.6607 4.9333 5.2119 5.7851 6.0768 6.3763 6.6765 6.9783 7.2801 7.3231	117.1647 119.7730 122.3197 124.8060 127.2322 129.5968 131.8968 134.1252 136.2740 138.3295 140.2727 142.0779 143.7111 145.1287 146.2774	6.4322 6.6333 6.8298 7.0217 7.2094 7.5729 7.77493 7.9225 8.932 8.2618 8.4292 8.5964 8.7651 8.9371 8.9621	1.1101 1.1064 1.1031 1.1001 1.0974 1.0949 1.0926 1.0889 1.0855 1.0855 1.0855 1.0855 1.0863	1.1098 1.1060 1.1025 1.0993 1.0962 1.0933 1.0845 1.0845 1.0845 1.0779 1.0739 1.0637 1.0637	.9998 .9995 .9993 .9993 .9985 .9985 .9971 .9960 .9974 .9923 .9854 .9801 .9730	.1043E-04 .1087E-04 .1130E-04 .1173E-04 .1214E-04 .1254E-04 .1294E-04 .1333E-04 .1372E-04 .1410E-04 .1486E-04 .1523E-04 .1562E-04 .1602E-04	.8069E-02 .9028E-02 .9028E-02 .1095E-01 .1191E-01 .1297E-01 .1383E-01 .1480E-01 .1576E-01 .1673E-01 .1771E-01 .1869E-01 .2069E-01 .2172E-01	.7857 .7547 .7302 .7104 .6942 .6807 .6693 .6596 .6513 .6442 .6381 .6329 .6286 .6251	
				s	/R= 8.5000)						
T	٧	p	h∕RT	a	c _p /R	γ	Υ _e	Z	μ	k	N _{Pr}	
223.3157 233.3157 243.3157 253.3157 263.3157 273.3157 283.3157 293.3157 313.3157 313.3157 323.3157 343.3157 343.3157 343.3157 363.3157 363.3157	15.2438 9.9226 6.4949 4.2743 2.8281 1.8807 1.2570 .8444 .5700 .3867 .1807 .1245 .0863 .0602 .0508	.0087 .0140 .0223 .0352 .0353 .0863 .1338 .2060 .3153 .4795 .7244 1.0870 1.6196 2.3951 3.5128 4.2048	3.8303 4.0822 4.3410 4.6064 4.8783 5.1565 5.4407 5.7306 6.0259 6.3262 6.6309 6.9394 7.2510 7.5645 7.8786 8.0285	121.8254 124.3362 126.7922 129.1944 131.5431 133.8370 136.0736 136.2460 140.3531 142.3783 144.3086 146.1237 147.7971 149.2944 150.5741	6.7889 6.9814 7.1695 7.3533 7.5330 7.7089 7.8810 8.0450 8.2150 8.3776 8.5376 8.5376 8.5376 8.5376 9.0125 9.1725	1.1037 1.1006 1.0977 1.0951 1.0927 1.0996 1.0886 1.0868 1.0853 1.0829 1.0821 1.0817 1.0817 1.0823 1.0829	1.1034 1.1002 1.0972 1.0974 1.0918 1.0892 1.0867 1.0760 1.0760 1.0772 1.0688 1.0688 1.0588	. 9998 . 9997 . 9994 . 9991 . 9988 . 9983 . 9976 . 9967 . 9954 . 9954 . 9988 . 9882 . 98840 . 9784 . 9751	.1122E-04 .1164E-04 .1205E-04 .1246E-04 .1286E-04 .1363E-04 .1401E-04 .1438E-04 .1438E-04 .1512E-04 .1549E-04 .1628E-04 .1628E-04 .1628E-04	.9789E-02 .1075E-01 .1171E-01 .1267E-01 .1363E-01 .1459E-01 .1555E-01 .1652E-01 .1748E-01 .1748E-01 .2040E-01 .2139E-01 .2239E-01 .2341E-01	.7348 .7141 .6972 .6872 .6713 .6613 .6526 .6451 .6386 .6329 .6236 .6199 .6146	

TABLE V.- Continued

s/R= 9.0000												
T	٧	р	h∕RT	a	c _p ∕R	Υ	Υe	Z	μ	k	N _{Pr}	
241.6853	15.2438	.0694	4.2987	126.4194	7.1385	1.0981	1.0979	.9998	.1199E-04	.1155E-01	.6997	
251.6853	10.0238	.0149	4.5632	128.8410	7.3227	1.0954	1.0951	.9997	.1239E-04	.1251E-01	.6852	
261.6853	6.t252	.0235	4.8343	131.2137	7.5027	1.0930	1.0926	• 9996	.1279E-04	.1347E-01	.6731	
271.6853	4.4013	.0367	5.1119	133.5383	7.6786	1.0907	1.0901	.9995	.1318E-04	.1443E-01	.6627	
281.6853	2.9386	.0569	5.3956	135.8149	7.8505	1.0886	1.0878	.9993	.1357E-04	.1539E-01	.6538	
291.6853	1.9717	.0879	5.6854	138.0428	8.0166	1.0867	1.0856	.9990	.1395E-04	.1635E-01	.6461	
301.6853 311.6853	1.3293	•1347 •2054	5.9809 6.2819	140.2197 142.3420	8.1830 8.3439	1.0850 1.0834	1.0834	.9986 .9980	.1432E-04 .1469E-04	.1731E-01 .1828E-01	.6393 .6334	
321.6853	.9006 .6130	.3111	6.5382	144.4040	8.5016	1.0820	1.0790	.9973	.1505E-04	.1924E-01	.6281	
331.6853	.4192	.4686	6.8992	146.3971	8.6563	1.0808	1.0767	9962	.1541E-04	.2021E-01	.6234	
341.6853	.2881	.7015	7.2147	148.3098	8.8085	1.0798	1.0742	.9948	.1576E-04	.2118E-01	.6192	
351.6853	.1990	1.0435	7.5339	150.1261	8.9586	1.0790	1.0714	.9929	.1612E-04	.2216E-01	.6156	
361.6853	.1381	1.5423	7.8563	151.8252	9.1074	1.0785	1.0682	.9904	.1647E-04	.2314E-01	.6124	
371.6853	.0964	2.2638	8.1809	153.3805	9.2558	1.0784	1.0644	.9871	.1683E-04	.2414E-01	.6097	
381.6853	.0676	3.2983	8.5067	154.7595	9.4049	1.0788	1.0600	.9826	.1720E-04	.2515E-01	.6075	
389.9096	•0507	4.4678	8.7745	155.7351	9.5292	1.0795	1.0557	.9780	.1751E-04	.2600E-01	.6062	
				s	/R= 9.5000	•					A.I	
Τ	٧	p	h∕RT	а	c _p ∕R	Υ	Υe	Z	μ	k	N _{Pr}	
260.4983	15.2438	.0102	4.8022	130.9564	7.4810	1.0932	1.0930	.9998	.1274E-04	.1336E-01	.6744	
270.4983	10.1201	.0159	5.0791	133.2961	7.6571	1.0909	1.0906	.9998	.1314E-04	.1431E-01	.6638	
280.4983	6.7523	.0247	5.3624	135.5919	7.8292	1.0887	1.0884	.9997	.1352L-04	.1527E-01	.6547	
290.4983	4.5272	.0381	5.6517	137.8444	7.9972	1.0867	1.0863	.9995	.1390E-04	•1623E-01	.6469	
300.4983	3.0500	.0585	5.9471	140.0540	8.1614	1.0849	1.0842	.9994 .9991	.1427E-04	.1719E-01 .1816E-01	.6400 .6339	
310.4983	2.0644	.0893	6.2481 6.5547	142.2199 144.3404	8.3218 8.4785	1.0832	1.0804	.9988	.1500E-04	.1912E-01	.6285	
320.4983 330.4983	1.4039 .9590	.1356 .2045	6.8666	146.4128	8.6318	1.0803	1.0785	.9983	.1536E-04	.2008E-01	.6236	
340.4983	.6582	•3069	7.1835	148.4323	8.7818	1.0790	1.0766	.9977	.1571E-04	.2105E-01	.6192	
350.4983	.4537	.4578	7.5050	150.3925	8.9287	1.0779	1.0745	9969	.1606E-04	.2201E-01	.6153	
360,4983	.3142	.6791	7.8309	152.2840	9.0729	1.0770	1.0724	.9957	.1640E-04	.2298E-01	.6117	
370.4983	.2187	1.0016	8.1605	154.0947	9.2147	1.0763	1.0700	.9942	.1675E-04	·2396E-01	.6085	
380.4983	•1529	1.4683	8.4933	155.8082	9.3548	1.0758	1.0674	.9922	.1709E-04	.2494E-01	.6056	
390.4983	.1074	2.1389	8.8285	157.4041	9:4939	1.0756	1.0643	.9896	.1744E-04	.2593E-01	.6031	
400.4983	.0759	3.0947	9.1652	158.8571	9.6328	1.0757	1.0607	.9861	.1779E-04	.2694E-01	.6011	
410.4983	.0539	4.4451	9.5023	160.1384	9.7728	1.0763	1.0565 1.0557	.9815	.1816E-04	.2796E-01	.5995 .5993	
412.2741	.0507	4.7366	9.5620	160.3456	9.7979	1.0765	1.0937	.9806	.1822E-04	.2815E-01	• 2773	
				s	/R-10.000)						
Ţ	٧	p	h ∕RT	a	c _p ∕R	γ	Υ _e	Z	μ	k	$^{N}_{Pr}$	
279.7609	15.2400	.0109	5.3416	135.4439	7.8161	1.0888	1.0887	.9999	.1349E-04	.1520E-01	.6553	
289.7609	10.2145	.0169	5.6307	137.7081	7.9843	1.0868	1.0866	.9998	.1387E-04	.1616E-01	.6474	
299.7609	6.8784	.0259	5.9258	139.9326	8.1484	1.0849	1.0846	.9997	.1424E-04	.1712E-01	.6404	
309.7609	4.6536	.0396	6.2267	142.1182	8.3087	1.0832	1.0828	.9996 .9995	.1461E-04	.1808E-01	.6342	
319.7609 329.7609	3.1629	.0601	6.5334 6.8455	144.2650 146.3727	8.4651 8.6178	1.0816	1.0810 1.0793	.9993	.1497E-04 .1533E-04	.1904E-01 .2000E-01	.6287 .6238	
339.7609	2.1594 1.4809	.0907 .1363	6.8455 · 7.1629	148.4398	8.7669	1.0787	1.0776	.9990	.1568E-04	.2000E-01	.6193	
349.7609	1.6201	.2036	7.4853	150.4642	8.9125	1.0775	1.0760	.9986	.1602E-04	.2193E-01	.6153	
359.7609	.7058	.3025	7.8125	152.4423	9.0548	1.0764	1.0743	.9981	.1636E-04	.2289E-01	.6115	
369.7609	.4904	.4471	8.1443	154.3689	9.1939	1.0754	1.0726	.9974	.1670E-04	.2386E-01	.6081	
379.7609	.3423	.6573	8.4802	156.2370	9.3302	1.0745	1.0707	9965	.1704E-04	.2483E-01	.6050	
389.7609	.2400	.9611	8.8198	158.0368	9.4639	1.0738	1.0687	.9953	.1737E-04	.2580E-01	.6021	
399.7609	.1690	1.3973	9.1625	159.7560	9.5955	1.0733	1.0665	.9937	•1771E-04	.2678E-01	.5995	
409.7609	•1196	2.0198	9.5079	161.3787	9.7256	1.0730	1.0640	.9916	.1805E-04	.2777E-01	.5971	
419.7609	.0851	2.9015	9.8550	162.8857	9.8549	1.0731	1.0611	.9888	.1839E-04	.2877E-01	.5951	
429.7609	.0608	4.1406	10.2028	164.2549	9.9844 10.0554	1.0734 1.0738	1.0577 1.0556	.9853 .9829	.1874E-04 .1894E-04	.2978E-01 .3035E-01	.5934 .5927	
435.2147	.0508	5.0114	10.3924	164.9353	10.0224	1.0138	1.0550	. 4024	* 10445-04	.30335-01	. 2761	

TABLE V.- Continued

s /R=10.5000											
T	V	р	h∕RT	а	c _p R	γ	Υ _e	· Z	μ	k	N _{Pr}
299.4815	15.2380	.0117	5.9178	139.8891	8.1434	1.0849	1.0848	•9999	.1423E-04	.1709E-01	.6406
309.4815 319.4815	10.3083 7.0044	.0178 .0271	6.2187 6.5253	142.0832 144.2415	8.3036 8.4599	1.0832	1.0830 1.0813	•9998 •9998	.1460E-04 .1496E-04	.1805E-01 .1901E-01	.6344 .6288
329.4815	4.7810	.0410	6.8376	146.3646	8.6123	1.0800	1.0797	9997	.1532E-04	.1997E-01	.6239
339.4815	3.2778	.0615	7.1552	148.4527	8.7610	1.0786	1.0781	.9995	.1567E-04	.2093E-01	.6194
349.4815	2.2571	.0920	7.4781	150.5055	8.9060	1.0773	. 1.0766	.9994	.1601E-04	.2189E-01	.6152
359.4815 369.4815	1.5609 1.0340	.1368 .2024	7.8060 8.1387	152.5220 154.5005	9.0474 9.1854	1.0761 1.0749	1.0751 1.0737	.9991 .9988	.1635E-04 .1669E-04	.2286E-01	.6115 .6079
379.4815	.7561	.2979	8.4760	156.4382	9.3199	1.0739	1.0722	9984	.1702E-04	.2478E-01	.6047
389.4815	•5296	.4363	8.8176	158.3311	9.4513	1.0730	1.0707	.9979	.1735E-04	.2575E-01	.6016
399.4815	.3725	.6358 .9217	9.1631 9.5123	160.1738 161.9589	9.5797 9.7053	1.0722 1.0716	1.0692 1.0675	.9971 .9961	-1768E-04	.2672E-01	.5988
409.4815 419.4815	.2631 .1867	1.3291	9.8647	163.6768	9.8286	1.0711	1.0656	.9949	.1800E-04 .1833E-04	.2769E-01	•5961 •5937
429.4815	.1330	1.9061	10.2196	165.3155	9.9500	1.0708	1.0635	.9932	.1866E-04	.2965E-01	.5914
439.4815	• 0953	2.7181	10.5765	166.8666	10.0701	1.0707	1.0612	.9910	.1899E-04	.3065E-01	.5894
449.4815 458.7596	.0686 . 0508	3.8525 5.2938	10.9344 11.2666	168.2952 169.5119	10.1895 10.3007	1.0710	1.0584	.9882 .9850	.1932E-04 .1965E-04	.3165E-01 .3260E-01	.5877 .5864
420.1270	•0500	712730	11.2000	107.5117	10.3001	1.0713	1.0333	. 70 30	*17056,704	•3200E-01	• 2004
_					5 /R=11.000			_		•.	
Τ	V	р	h/RT	а	c _p ∕R	γ	Υe	Z	μ	k	N_Pr
319.6695 329.6695	15.2375 10.4024	.0125 .0188	6.5315 6.8439	144.2982 146.4273	8.4624 8.6146	1.0815	1.0814	.9999	•1497E-04	.1903E-01	.6287
339.6695	7.1312	.0283	7.1619	148.5238	8.7630	1.0799 1.0785	1.0798 1.0783	.9998 .9998	•1532E-04 •1567E-04	.1999E-01	.6238 .6192
349.6695	4.9103	.0423	7.4851	150.5884	8.9076	1.0772	1.0768	.9997	.1602E-04	2191E-01	.6151
359.6695	3.3955	.0630	7.8134	152.6213	9.0485	1.0759	1.0755	• 9996	.1635E-04	.2287E-01	.6113
369.6695 3 7 9.6695	2.3579 1.6442	.0932 .1372	8.1467 8.4848	154.6223 156.5908	9.1858 9.3194	1.0747 1.0736	1.0741 1.0729	•9995 •9993	.1669E-04	.2383E-01	.6078
389.6695	1.1512	.2010	8.8274	158.5252	9.4496	1:0726	1.0716	9990	•1702E-04 •1735E-04	.2479E-01 .2575E-01	.6045 .6014
399.6695	.8094	.2932	9.1744	160.4237	9.5764	1.0717	1.0703	.9987	.1767E-04	.2672E-01	.5984
409.6695 419.6695	.5714 .4050	.4255 .6146	9.5255 9.8804	162.2831 164.0993	9.7000 9.82 05	1.0709	1.0690	.9982	.1799E-04	.2768E-01	•5957
429.6695	.2883	.8833	10.2388	165.8666	9.9382	1.0702 1.0696	1.0677 1.0662	•9976 •9968	.1831E-04 .1863E-04	.2865E-01 .2962E-01	•5930 •5905
439.6695	.2061	1.2633	10.6002	167.5779	10.0532	1.0691	1.0647	9958	.1895E-04	.3060E-01	.5881
449.6695	•1479	1.7974	10.9643	169.2241	10.1661	1.0688	1.0630	.9945	.1926E-04	•3158E-01	.5859
459.6695 469.6695	•1067 •0773	2.5438 3.5802	11.3304 11.6978	170.7944 172.2763	10.2772 10.3872	1.0687 1.0688	1.0610 1.0589	.9928 .9906	.1959E-04 .1991E-04	•3257E-01	.5839
479.6695	.0562	5.0089	12.0657	173.6568	10.4967	1.0692	1.0564	.9879	.2025E-04	.3357E-01 .3459E-01	.5820 .5805
482.9398	.0508	5.5827	12.1859	174.0840	10.5326	1.0694	1.0555	.9869	.2036E-04	-3492E-01	.5800
				s	/R=11.5000						
T	٧	p	h∕RT	a	c _p ∕R	γ	Υ _e	Z	μ	k	N _{Pr}
340.3362	15.2398	.0133	7.1835	148.6775	8.7724	1.0784	1.0783	.9999	.1569E-04	.2101E-01	.6189
350.3362 360.3362	10.4959 7.2599	.0198 .0295	7.5072 7.8360	150.7458 152.7846	8.9166 9.0570	1.0770 1.0758	1.0769 1.0756	.9999 .9998	.1604E-04 .1638E-04	.2197E-01 .2293E-01	.6148 .6110
370.3362	5.0423	.0437	8.1699	154.7943	9.1938	1.0746	1.0743	9997	.1671E-04	.2389E-01	.6075
380.3362	3.5166	.0643	8.5086	156.7752	9.3268	1.0735	1.0731	•9997	•1704E-04	.2485E- 01	.6042
390.3362	2.4625	.0942	8.8520	158.7273	9.4563	1.0724	1.0719	.9995	.1737E-04	.2581E-01	.6011
400.3362 410.3362	1.7313 1.2221	.1374 .1995	9.1999 9.5521	160.6499 162.5423	9.5822 9.7046	1.0715 1.0706	1.0708 1.0697	.9994 .9992	.1769E-04 .1801E-04	.2677E-01 .2773E-01	.5981 .5953
420.3362	.8661	.2882	9.9084	164.4027	9.8236	1.0698	1.0686	9989	.1832E-04	.2870E-01	.5926
430.3362	.6163	.4145	10.2686	166.2289	9.9393	1.0690	1.0674	.9985	.1864E-04	.2966E-01	•5900
440.3362	.4402	.5935 .8458	10.6325 10.9996	168.0177 169.7651	10.0519 10.1615	1.0684	1.0663 1.0651	.9980 .9974	.1895E-04	.3063E-01	•5874 •5850
450.3362 460.3362	.3157 .2274	1.1996	11.3698	171.4655	10.1615	1.0674	1.0638	.9966	.1926E-04 .1957E-04	.3160E-01 .3257E-01	.5850 .5827
470.3362	.1644	1.6932	11.7425	173.1124	10.3729	1.0671	1.0624	.9956	.1987E-04	. 3355E- 0 1	.5805
480.3362	.1194	2.3781	12.1172	174.6978	10.4753	1.0669	1.0608	.9943	.2019E-04	.34946-01	.5784
490.3362	.0871	3.3227	12.4934	176.2126	10.5761	1.0669	1.0590	.9926 .9905	. 2050E-04	.35596-01 .36546-61	.5765 .5747
500.3362 50 7.8049	.0638 .0508	4.6171 5.8809	12.8704 13.1519	177 .6473 178 .6614	10.6758 10.7500	1.0671	1.0571 1.0555	.9886	.2082E-04 .2107E- 04	.3054E-01 .3731E-01	.5736

TABLE V.- Continued

				9	/R=12.000)					
Ŧ	٧	p	h ∕RT	a	c _p ∕R	γ	Υ _e	Z	μ	k	N _{Pr}
361.5047	15.2438	.0141	7.8751	153.0346	9.0729	1.0756	1.0755	9999	.1642E-04	.2304E-01	.6106
371.5047	10.5907	•0209	8.2096	155.0461	9.2090	1.0744	1.0743	.9999	.1675E-04	.2400E-01	.6071
381.5047 391.5047	7.3892 5.1763	.0307 .0450	8.5490 8.8932	157.0306 158.9887	9.3415 9.4703	1.0733 1.0722	1.0731 1.0720	.9998 .9998	.1708E-04	.2496E-01 .2592E-01	.6038 .6007
401.5047	3.6406	•0656	9.2419	160.9205	9.5954	1.0712	1.0709	9997	.1773E-04	.2688E-01	.5977
411.5047	2.5707	.0951	9.5950	162.8262	9.7170	1.0703	1.0699	9996	.1804E-04	.2784E-01	5949
421.5047	1.8223	.1374	9.9524	164.7052	9.8350	1.0695	1.0689	.9995	.1836E-04	.2830E-01	.5921
431.5047	1.2968	•1977	10.3138	166.5571	9.9495	1.0687	1.0679	.9993	.1867E-04	.2976E-01	•5895
441.5047	.9264	.2831	10.6791	168.3806	10.0607	1.0679	1.0670	.9991	.1898E-04	.3073E-01	.5869
451.5047 461.5047	.6644 .4783	.4035 .5727	11.0480 11.4204	170.1740 171.9351	10.1685 10.2731	1.0673	1.0660 1.0650	.9988 .9984	.1928E-04	.3169E-01 .3266E-01	.5844 .5820
471.5047	.3457	.8092	11.7959	173.6608	10.3748	1.0662	1.0640	.9979	.1989E-04	.3363E-01	.5796
481.5047	.2508	1.1383	12.1742	175.3471	10.4735	1.0658	1.0629	.9973	.2019E-04	.3460E-01	.5773
491.5047	.1827	1.5937	12.5550	176.9893	10.5696	1.0655	1.0617	.9965	.2049E-04	.3557E-01	.5750
501.5047	.1336	2.2210	12.9379	178.5816	10.6634	1.0653	1.0604	.9954	.2079E-04	.3656E-01	.5729
511.5047	.0982	3.0802	13.3223	180.1176	10.7552	1.0653	1.0591	.9941	.2110E-04	.3755E-01	.5708
521.5047 531.5 04 7	.0724 .0537	4.2500 5.8328	13.7076 14.0932	181.5906 182.9 948	10.8455 10.9348	1.0654	1.0575 1.0559	.9925 .9905	.2141E-04 .2173E-04	.3855E-01 .3957E-01	.5689 .5672
533.3864	.0507	6.1871	14.1657	183.2510	10.9516	1.0658	1.0555	.9901	.2179E-04	.3976E-01	.5669
75313001		0.1011	1111071	103.1310	101,710	110000	1.0333	• / / 0 •	122172 01		•,,,,,
			L /DT		7R=12.500		v	Z	μ	k	N Pr
Ţ		Þ	h/RT	a	c _. ∕R	γ	Υ _e				
383.2026	15.2381	.0150	8.6074	157.3774	9.3633	1.0731	1.0730	.9999	.1713E-04	.2512E-01	.6032
393.2026	10.6810	.0219	8.9524	159.3355	9.4913	1.0720	1.0719	.9999	.1746E-04	.2608E-01	.6002
403.2026	7.5171	.0319	9.3020	161.2690 163.1783	9.6157 9.7364	1.0710	1.0709 1.0699	.9999 .9998	.1778E-04 .1810E-04	.2704E-01 .2800E-01	.5972 .5944
413.2026 423.2026	5.3110 3.7669	.0462 .0668	9.6561 10.0144	165.0636	9.8536	1.0692	1.0690	.9997	.1841E-04	.2896E-01	.5916
433.2026	2.6821	.6960	10.3769	166.9251	9.9671	1.0684	1.0681	.9997	.1872E-04	.2992E-01	.5890
443.2026	1.9169	.1374	10.7433	168.7626	10.0772	1.0677	1.0672	.9996	.1902E-04	.3088E-01	.5864
453.2026	1.3752	.1958	11.1135	170.5756	10.1838	1.0670	1.0663	.9994	.1933E-04	.3185E-01	.5839
463.2026	.9904	.2779	11.4874	172.3633	10.2869	1.0663	1.0655	.9992	.1963E-04	.3281E-01	.5814
473.2026	.7159	•3926	11.8646 12.2451	174.1246 175.8576	10.3868 10.4834	1.0657 1.0652	1.0647	.9990 .9987	.1992E-04 .2022E-04	.3377E-01 .3474E-01	.5789 .5765
483.2026 493.2026	.5194 .3783	.5524 .7738	12.6284	177.5604	10.5770	1.0652	1.0629	9983	.2051E-04	.3570E-01	.5741
503.2026	.2766	1.0794	13.0145	179.2300	10.6675	1.0644	1.0620	9978	.2081E-04	.3667E-01	.5718
513.2026	.2030	1,4991	13.4029	180.8632	10.7553	1.0641	1.0611	.9972	.2110E-04	.3765E-01	.5695
523.2026	.1495	2,0727	13.7933	182.4558	10.8406	1.0639	1.0600	.9964	.2140E-04	.3863E-01	.5672
533.2026	.1106	2.8526	14.1853	184.0036	10.9236	1.0638	1.0589	.9954	.2169E-04	.3962E-01	.5651
543.2026	.0822 .0613	3.9075 5.3260	14.5783 14.9718	185.5020 186.9473	11.0047 11.0844	1.0639	1.0577 1.0565	•9942 •9927	.2199E-04 .2230E-04	.4061E-01 .4162E-01	.5630 .5611
553.2026 5 59.7307	.0508	6.5007	15.2286	187.8613	11.1358	. 1.0644	1.0556	.9915	.2251E-04	.4229E-01	.5600
				,	/R=13.0000	,					
τ-	v		h ∠DT				v	Z	μ	k	N
T	V	þ	h∕RT	а	c ∕R	γ	Υe				N _{Pr}
405.4265	15.2438	•0158	9.3806	161.7069	9.6426	1.0708	1.0707	.9999	.1785E-04	.2726E-01	•5966
415.4265 425.4265	10.7780 7.6507	.0229 .0331	9.7358 10.0952	163.6149	9.7624 9.8786	1.0699	1.0698	.9999 .9999	.1816E-04	.2821E-01	.5937
435.4265	5.4515	.0475	10.4587	165.5002 167.3634	9.9912	1.0690	1.0689 1.0680	.9999	.1848E-04 .1878E-04	.2917E-01 .3013E-01	.5910 .5884
445.4265	3.8992	.0679	10.8262	169.2047	10.1002	1.0674	1.0672	9998	.1909£-04	.3109E-01	.5858
455.4265	2.7994	.0967	11.1976	171.0243	10.2057	1.0667	1.0664	.9997	.1939E-04	.3205E-01	.5832
465.4265	2.0172	.1371	11.5727	172.8220	10.3076	1.0660	1.0656	.9996	.1969E-04	.3301E-01	.5807
475.4265	1.4590	•1936	11.9512	174.5977	10.4062	1.0654	1.0649	.9995	.1999E-04	.3398E-01	.5783
485.4265 495.4265	1.0591 .7717	.2723	12.3332 12.7183	176.3508 178.0805	10.5013 10.5931	1.0648	1.0642	•9994 •9992	.2028E-04	.3494E-01	.5758
505.4265	.5643	.3814 .5319	13.1063	179.7856	10.5931	1.0643	1.0634 1.0627	.9992	.2057E-04 .2086E-04	.3590E-01 .3687E-01	.5734 .5709
515.4265	.4142	.7389	13.4971	181.4647	10.7671	1.0634	1.0620	9986	.2115E-04	.3783E-01	.5685
525.4265	.3051	1.0220	13.8904	183.1158	10.8494	1.0631	1.0612	.9982	.2143E-04	.3880E-01	.5661
535.4265	.2256	1.4078	14.2859	184.7366	10.9289	1.0628	1.0604	.9977	.2172E-04	.3977E-01	• 5637
545.4265	.1675	1.9310	14.6833	186.3245	11.0057	1.0626	1.0596	.9971	.2200E-04	.4075E-01	.5614
555 .4265 565 .4265	.1248 .0933	2.6371 3.5853	15.0822 15.4822	187.8767 189.3903	11.0800 11.1521	1.0625	1.0587	.9964 .9955	.2229E-04	.4174E-01	.5591
575.4265	.0701	4.8521	15.4822	190.8631	11.1521	1.0626 1.0627	1.0578 1.0569	.9955	.2258E-04	.4273E-01 .4373E-01	•5569 •5548
585.4265	.0529	6.5347	16.2833	192.2946	11.2913	1.0631	1.0559	.9930	.2319E-04	.4474E-01	.5528
586.9057	.0508	6.8260	16.3425	192.5030	11.3013	1.0631	1.0557	.9928	.2323E-04	.4490E-01	.5525

TABLE V.- Continued

s/R=13.5000											
T	V	p	h <rt< td=""><td>а</td><td>c_p∕R</td><td>γ</td><td>Υ_e</td><td>Z</td><td>μ</td><td>k</td><td>N_{Pr}</td></rt<>	а	c _p ∕R	γ	Υ _e	Z	μ	k	N_{Pr}
428.2326	15.2386	.0167	10.1970	166.0354	9.9103	1.0687	1.0687	.9999	•1856E-04	.2944E-01	.5903
438.2326	10.6690	.3240	10.5618	167.8959	10.0218	1.0679	1.0678	•9999	.1887E-04	.3040E-01	.5876
448.2326	7.7826	.0342	10.9305	169.7357	10.1297	1.0672	1.0671	.9999	.1917E-04	.3136E-01	.5851
458.2326	5.5925	.0487	11.3031	171.5551	10.2340	1.0665	1.0663	•9999	•1947E-04	.3232t-01	.5825
468.2326	4.0338	•0690	11.6794	173.3546	10.3348	1.0658	1.0656	.9998	.1977E-04	•3328E-01	.5800
478.2326	2.9202	.0973	12.0592	175.1341	10.4320	1.0651	1.0649	.9998	.2007E-04	.3424E-01	.5775
488.2326	2.1217	.1368	12.4425	176.8939	10.5258	1.0646	1.0642	.9997	.2036E-04	.3520E-01	.5750
498.2326	1.5471	.1914	12.8290	178.6337	10.6162	1.0640	1.0636	.9996	.2065E-04	.3616E-01	.5726
508.2326	1.1322	.2667	13.2185	180.3532 182.6520	10.7032 10.7868	1.0635	1.0629	.9995 .9993	-2093E-04	.3712E-01	.5701
518.2326 528.2326	.8315 .6129	.3703 .5120	14.0062	183.7293	10.78672	1.0630	1.0623	.9991	.2122E-04 .2150E-04	.3809E-01	.5676 .5652
538.2326	.4534	.7051	14.4039	185.3840	10.9444	1.0623	1.0611	.9989	.21788-04	.4002E-01	.5627
548.2326	.3366	.9671	14.8039	187.0151	11.0185	1.0620	1.0605	.9986	.2206E-04	.4099E-01	.5602
558.2326	.2508	1.3211	15.2059	188.6210	11.0896	1.0617	1.0598	9982	.2234E-04	.4196E-01	.5577
568.2326	.1875	1.7975	15.6096	190.2000	11.1579	1.0615	1.0592	.9978	.2262E-04	.4293E-01	.5553
578.2326	.1405	2.4355	16.0148	191.7506	11.2236	1.0614	1.0585	.9972	.2290E-04	.4391E-01	.5529
588.2326	.1061	3.2860	16.4211	193.2710	11.2868	1.0614	1.0578	.9965	.2318E-04	.4490E-01	.5505
588.6889	.1041	3.3502	16.4478	193.3698	11.2909	1.0614	1.0577	•9965	.2320E-04	.4496E-01	.5503
				9	5 /R=14.000	0					
T	V	р	h/RT	a	c _p ∕R	γ	Υ _e	Z	μ	k	N_
	•	P			p	•	• е		•		$^{N}_{Pr}$
451.6151	15.2438	.0176	11.0563	170.3625	10.1651	1.0669	1.0668	.9999	.1928E-04	.3169E-01	.5842
461.6151	10.9678	.0250	11.4303	172.1782	10.2681	1.0662	1.0661	.9999	.1957E-04	.3264E-01	.5816
471.6151	7.9204	.0354	11.8079	173.9748	10.3676	1.0655	1.0654	•9999	•1987E-04	.3360E-01	.5791
481.6151	5.7406	.0499	12.1891	175.7527	10.4635	1.0649	1.0648	.9999	.2016E-04	.3456E-01	•5766
491.6151	4.1756	.0700	12.5736	177.5123	10.5560	1.0643	1.0641	•9998	•2045E-04	.3552E-01	.5742
501.6151	3.0482	.0978	12.9615	179.2537	10.6449	1.0638	1.0635	.9998	.2074E-04	.3648E-01	.5717
511.6151 521.6151	2.2331 1.6417	.1362	13.3524 13.7463	180.9771 182.6824	10.7304	1.0632	1.0630	.9997	.2102E-04	.3744E-01	5692
531.6151	1.2112	.2608	14.1430	184.3695	10.8125 10.8912	1.0628	1.0624	.9997	•2131E-04	.3841E-01	.5667
541.6151	.8968	.3589	14.5423	186.0381	10.9666	1.0623 1.0619	1.0619	.9996 .9994	.2159E-04 .2186E-04	.3937E-01	.5642
551.6151	.6663	.4919	14.9440	187.6878	11.0387	1.0614	1.0608	.9993	.2214E-04	.4033E-01 .4129E-01	.5617 .5591
561.6151	.4967	.6716	15.3481	189.3181	11.1075	1.0612	1.0603	.9991	.2241E-04	.4226E-01	.5566
571.6151	.3716	.9134	15.7542	190.9281	11.1733	1.0610	1.0598	9989	.2269E-04	.4323E-01	.5540
581.6151	.2790	1.2375	16.1621	192.5171	11.2360	1.0607	1.0593	9986	.2296E-04	.4419E-01	.5515
588.8889	.2271	1.5395	16.4599	193.6592	11.2798	1.0606	1.0589	.9984	.2316E-04	.4490E-01	.5496
				s	/R=14.5000			7		le.	N.
T	٧	p	h/RT	а	c _p /R	γ	Υ _e	Z	μ	k	N _{Pr}
475.6443	15.2389	.0186	11.9613	174.7016	10.4065	1.0652	1.0652	1.0000	.1999E-04	.3399E-01	.5781
485.6443	11.0601	.0261	12.3439	176.4747	10.5009	1.0646	1.0646	.9999	.2028E-04	.3495E-01	.5756
495.6443	8.0564	.0366	12.7299	178.2302	10.5918	1.0640	1.0640	.9999	.2057E-04	.3591E-01	.5731
505.6443	5.8893	.0510	13.1192	179.9687	10.6792	1.0635	1.0634	.9999	.2085E-04	.3687E-01	.5707
515.6443	4.3203	.0710	13.5115	181.6902	10.7632	1.0630	1.0628	.9999	.2114E-04	.3783E-01	.5682
525.6443	3.1804	.0982	13.9068	183.3951	10.8437	1.0625	1.0623	•9998	.2142E-04	.3879E-01	.5656
535.6443	2.3494	.1355	14.3048	185.0836	10.9207	1.0621	1.0618	•9998	.2170E-04 .2197E-04	.3975E-01 .4071E-01	.5631 .5606
545.6443	1.7416	.1862	14.7056	186.7557 188.4113	10.9944 11.0647	1.0616	1.0613	.9997 .9996	.2224E-04	.4167E-01	.5580
555.6443	1.2955	.2549	15.1088	190.0505	11.1316	1.0609	1.0604	.9996	.2252E-04	.4263E-01	.5554
565.6443	•9669 •7242	.3476 .4723	15.5145 15.9223	191.6730	11.1953	1.0606	1.0600	.9994	·2279E-04	.4360E-01	.5528
575.6443 585.6443	• 7242	•6393	16.3321	193.2785	11.2558	1.0603	1.0596	9993	.2305E-04	.4456E-01	.5501
588.8889	• 4964	.7047	16.4654	193.7958	11.2747	1.0602	1.0595	9992	.2314E-04	.4487E-01	.5493
- 50 - 60 00 7	• , , , , ,	*								· -	

TABLE V.- Concluded

s /R=15.0000														
T	٧	p	h /RT	a	c / R	γ	Υ _e	Z	μ	k	N _{Pr}			
500.3253	15.2395	.0195	12.9119	179.0534	10.6330	1.0638	1.0637	1.0000	.2070E-04	.3636E-01	.5720			
510.3253	11.1579	.0272	13.3027	180.7861	10.7187	1.0632	1.0632	.9999	.2099E-04	.3732E-01	.5695			
520.3253	8.1984	.0377	13.6965	182.5026	10.8009	1.0627	1.0627	•9999.	.2127E-04	.3828E-01	.5670			
530.3253	6.0449	.0522	14.0933	184.2034	10.8797	1.0623	1.0622	.9999	.2155E-04	.3924E-01	. 5644			
540.3253	4.4724	.0718	14.4928	185.8886	10.9550	1.0618	1.0617	.9999	.2182E-04	.4020E-01	.5619			
550.3253 560.3253	3.3204 2.4735	.0985	14.8949	187.5587	11.0268	1.0614	1.0612	.9999	.2210E-04	.4116E-01	.5593			
570.3253	1.8489	.1347 .1834	15.2996 15.7066	189.2136 190.8537	11.0953 11.1604	1.0610	1.0608	.9998	.2237E-04	.4212E-01	.5567 .5541			
580.3253	1.3867	• 2487	16.1159	192.4790	11.2222	1.0607	1.0604	.9998 .9997	.2264E-04	.4308E-01 .4404E-01	.5514			
588.8889	1.0869	.3220	16.4680	193.8590	11.2724		1.0600		.22918-04		.5491			
28010007	1.0009	•3220	10.4000	143.0540	11.2724	1.0601	1.0597	.9997	.2313E-04	.4486E-01	• 2441			
s /R=15.5000														
τ	V	p	h ∕RT	a	c _p /R	γ	Υe	Z	μ	k	N _{Pr}			
525.7058	15.2438	.0205	13.9098	183.4261	10.8435	1.0625	1.0624	1.0000	.2142E-04	.3879E-01	.5656			
535.7058	11.2590	.0283	14.3082	185.1203	10.9204	1.0620	1.0619	1.0000	.2170E-04	.3975E-01	.5631			
545.7058	8.3453	.0389	14.7092	186.7997	10.9937	1.0616	1.0615	.9999	.2197E-04	.4071E-01	.5605			
555.7058	6.2068	.0532	15.1129	188.4645	11.0637	1.0612	1.0611	.9999	.2224E-04	.4167E-01	.5579			
565.7058	4.6319	.0726	15.5190	190.1150	11.1302	1.0608	1.0607	.9999	.2251E-04	.4263E-01	.5553			
575.7058	3.4683	.0987	15.9274	191.7516	11.1933	1.0604	1.0603	.9999	.2278E-04	.4359E-01	.5526			
585.7058	2.6057	.1336	16.3380	193.3744	11.2530	1.0601	1.0599	•9999	.2305E-04	.4455E-01	.5500			
568.5889	2.3806	.1470	16.4692	193.8881	11.2713	1.0600	1.0598	•9998	.2313E-04	.4486E-01	.5491			
				S	7R=16.000	0								
							.,	Z	11	k	N			
T	V	р	h /RT	a	c _p /R	Υ	γ _e	2	μ	K	N _{Pr}			
551.8433	15.2438	.0215	14.9568	187.8288	11.0369	1.0613	1.0613	1.0000	.2214E-04	.4130E-01	.5589			
561.8433	11.3600	.0294	15.3621	189.4863	11.1047	1.0609	1.0609	1.0000	.2241E-04	.4226E-01	.5563			
571.8433	8.4949	.0460	15.7697	191.1301	11.1690	1.0605	1.0605	1.0000	.2268E-04	.4322E-01	.5537			
581.8433	6.3736	.0543	16.1796	192.7606	11.2300	1.0602	1.0601	.9999	.2294E-04	.4418E-01	45510			
588.8889	5.2162	.0671	16.4697	193.9014	11.2709	1.0600	1.0599	.9999	.2313E-04	.4485E-01	.5491			
					s/R=16.500	0								
T	V	р	h ∕RT	a	c _p ∕R	γ	γ _e	Z	μ	k	N _{Pr}			
578.7903	15.2438	• 0226	16.0544	192.2690	11.2115	1.0603	1.0602	1.0000	.2286E-04	.4388E-01	.5518			
588.7903	11.4620	.0305	16.4659	193.8916	11.2701	1.0599	1.0599	1.0000	.2313E-04	.4484E-01	.5491			
588.8889	11.4304	.0306	16.4700	193.9075	11.2706	1.0599	1.0599	1.0000	.2313E-04	.4485E-01	.5491			

TABLE VI.- THERMODYNAMIC AND TRANSPORT PROPERTIES

OF C4F8 AT CONSTANT ENTROPY

s/R = 6.0000												
	T	v /		h RT	1		v	v	Z		k	N
	i	3	p	0 × K1)a	p	γ	Υe		μ 2		N_{Pr}
مر	K	m ³ ∕kg √	atm		m∕sec				1	N-s/m ²	W∕m-K	
	226.7625	1.3828	-:0669	4.7354 4.9860	/99.7922 /101.5159	6.9990 7.2125	1.0694	1.0630 1.0579	.9943	•		0.0000
	236.7625 246.7625	.3869	.1323 .2572	5.2431 5.4976	102.9377	7.4354	1.0694	1.0510	.9831			0.0000
	256.7625 266.7625	.2094 .1155	.4849 .9039	5.4976 5.7471	103.8950	7.6764 7.9494	1.0715 1.0763	1.0407 1.0250	.9719 .9543			0.0000
	276.7625	•0653	1.6120	5.9854	103.3082	8.2772	1.0854	1.0008	.9271	NOT	•	0.0000
	286.7625 296.7625	.0380 .0229	2.7448 4.4132	6.2046 6.3965	100.9331 96.4491	8.6976 9.2818	1.1023	•9637 •9080	.8869 .830o	AVAILABLE		0.0000
	306.7625 316.7625	.0144	6.6301	6.5538	89.2545 78.7688	10.1917 11.9331	1.1966	.8263 .7095	.7562			0.0000
	326.7625	.0094 .0063	9.2272 11.8180	6.6720 6.7507	64.4718 45.8552	17.3182	1.8687	.5482	.6642 .5582			0.0000
	336.7625 339.3769	.0044 .0041	13.8663 14.2471	6.7939 6.8003	45.8552 40.1683	-90.4504 -19.1988	-9.3630 -1.9669	.3376 .2754	.4450 .4153			0.0000
	337.3707	*0041	1402411	<i>2</i>	1012002	27,2700	20,00,					
				1		S /R=_6.500						
	. T	V	р	h ∕ॄRT	a	c _p /R	\ Υ	Υ _e	· Z	μ	k	N _{Pr}
	244.2946	1.3833	.0721	5.1948	10345104		1.0656	1.0604	.9951			0.0000
	254.2946	.7370		5.4605~	~~T05.2217	7.5355	1.0650	1.0562	.9918			0.0000
	264•2946 274•2946	•3973 •2172	•2691 •5064	5.7292 5.9982	106.6802 107.7515	7.7450 / 7.9677,	1.0651	1.0504	.9863 .9774			0.0000
	284.2946 294.2940	.1207	.9306	6.2638	108.2266	8.2144	1.0698	1.0291	.9632			0.0000
	294.2940 304.2946	.0685 .0399	1.6591 2.8440	6.5203 6.760b	107.7997 106.0570	8.5017 8.8572	1.0763 1.0882	1.0095 .9794	.9411 .9081	NOT		0.0000
	314.2946	.0239	4.6392 7.1272	6.9764 7.1597	102.4943 96.5815	9.3281 10.0089	1.1097 1.1502	.9343 .8684	.8608 .7969	AVAILABLE		0.0000
	324.2946 334.2946	•0149 •0096	10.2239	7.3048	87.8814	11.1326	1.2333	.7761	.7163			0.0000
	344,2946 354,2946	.0064 .0045	13.6199 16.8373	7.4099 7.4782	76.2465 62.2050 56.2342	13.4841 21.8273	1.4387 2.2447	.6537 .5065	.6215 .5188			0.0000
	358.3345	.0039	17.9803	7.4970	56.2342	36.4997	3.7008	.4450	.4772			0.0000
					:	S /R = 7.000	0					
	Ţ	V	p	h ∕RT	a	c R	γ	Υ _e	Z	μ	k	N _{Pr}
	262.2624	1.3831	.0775	5.6876 5.9661	107.1753	7.6627 7.8557	1.0623	1.0580	.9960			0.0000
	272.2624 282.2624	•7469 •4076	.1485 .2809	5.9661 6.2479	108.8678 110.3472	8.0531	1.0616	1.0545 1.0496	.9933 .9889			0.0000
	292.2624	.2251	•5227 •9534	6.5309 6.8116	111.5021 112.1583	8.2600 8.4846	1.0624	1.0426	.9817 .9702			0.0000
	302.2624 312.2624	.1262 .0720	1.6947	7.0852	112.0572	8.7395	1.0693	1.0161	~0522	NOT		0.0000
	322.2624 332.2624	.0420 .6251	2.9139 4.8009	7.3452 7.5836	110.8419	9.0449	1.0778	.9916 .9549	9250 8836	AVAILABLE		0.0000
	342.2624	.0156	7.5049	7.7922	103.2662	9.9666	1.1205	.9017	.8314 .7615	MY/ME/IDEE		0.0000
	352.2624 362.2624	.0100	11.0345 15.1786	7.9641 8.0964	96.08 03 86.5159	12.1500	1.2803	.8280 .7334	.7615 .6778			0.0000
	372.2624	.0046	17.5469	8.1911	75.3653	15.0852	1.5389	.7334 .6264	.6778 .58/60			0.0000
	377.2920	.0038	21.6918	8.2265	69.7780	18.0791	1.8160	•5756	.5394			0.0000
		•			5	/R= 7.5000)		1			
	T	V	p	h ∕RT	а	c _p ∕R	γ	Υ _e	/ Z	μ	k	N_{Pr}
	280.6560	1.3831	.0830	6.2142	110.7924	7.9884 8.1720	1.0594	1.0558 1.0528	1.9967			0.0000
	290.6560 300.6560	.7568 .4180	.1567 .2923	6.5052 6.7998	112.4619 113.9508	8.1720	1.0587 1.0585	1.0528	.9945 .9908			0.0000
	310.6560	.2334	.5377	7.0961	115.1665	8.5513	1.0590	1.0429 /	.9850			0.0000
	320.6560 330.6560	.1320 .C758	.9721 1.7195	7.3911 7.6807	115.9642 116.1273	8.7571 8.9855	1.0606 1.0639	1.0342	.9756 .9610	NOT		0.0000
	340.6560	.0444	2.9566 4.9013	7.9591 8.2187	115.3522 113.2541	9.2514 9.5788	1.0701 1.0810	1.0011 .9713	.9387 .9061	AVAILABLE	•	0.0000
	350.6560 360.6560	•0266 •0164	7.7615	8.4515	109.4209	10.0080	1.1004	. 9283	.8604		-	0.0000
	370.6560 380.6560	.0105 .0069	11.6395 16.4379	8.6499 8.8097	103.5504 95.7059	10.6130 11.5460	1.1351 1.2002	.8694 .7955	.8006 .7278			0.0000
	390.6560	.0047	21.8638	8.9316	86.7142	13.1356	1.3273	.8694 .7955 .71/60 .6752	.6468			0.0000
	396.6223	.0038	25.2694	8.9888	81.57 63	14.6443	1.4561	.0(52	.5979	•		0.0000
		/						ì				

104

Table VI.- Thermodynamic and transport properties $\text{ of } c_{\mu} F_{8} \text{ at constant entropy }$

				s/F	R = 6.0000						
T	٧	р	h/RT	a	c _p /R	Υ	Υ _e	Z	μ	k	N _{Pr}
K	m ³ /kg	atm		m/sec	r				N-s/m ²	W/m-K	
224.9596 234.9596 244.9596 254.9596 264.9596 271.3311	1.5550 .8152 .4330 .2336 .1284 .0887	.0590 .1171 .2285 .4362 .8110	4.6903 4.9422 5.1970 5.4519 5.7028 5.8578	99.4580 101.2238 102.7100 103.7666 104.1614 103.9185	6.9611 7.1735 7.3942 7.6311 7.8970 8.0905	1,0696 1,0689 1,0692 1,0710 1,0752 1,3798	1.0637 1.0590 1.0524 1.0428 1.0283 1.0152	.9946 .9906 .9845 .9744 .9581	NOT AVAILABLE		0.0000 0.0000 0.0000 0.0000 0.0000
				s/R	R = 6.5000						
T	V	р	h/RT	a	c _p /R	γ	Υ _e	Z	μ	k	N _{Pr}
242.4510 252.4510 262.4510 272.4510 282.4510 292.4510 302.4510 312.4510 312.4510	1.5555 .6270 .4448 .2425 .1343 .0759 .0439 .0262	.0637 .1243 .2390 .4514 .8336 1.4953 2.5838 4.2569 5.9047	5.1463 5.4112 5.6795 5.9488 6.2153 6.4740 6.7179 6.9389 7.0805	103.1746 104.9221 106.4355 107.5915 108.1963 107.9636 106.4993 103.3125 99.6076	7.2955 7.4977 7.7056 7.9253 8.1664 8.4446 8.7848 9.2293 9.6621	1.0658 1.0651 1.0650 1.0662 1.0690 1.0748 1.0854 1.1047	1.0611 1.0571 1.0516 1.0438 1.0319 1.0138 .9859 .9440	.9456 .9925 .9875 .9794 .9663 .9459 .9151 .8707	NO AVAIL		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
				s/F	R = 7.0000						
T	V	p	h/RT	a	$c_{\rm p}^{\rm /R}$	γ	γ_{e}	Z	μ	k	N_{Pr}
260.3758 270.3758 280.3758 290.3758 300.3758 310.3758 320.3758 340.3758 350.3758 360.3758 370.3758	1.5553 .8383 .4565 .2516 .1406 .0799 .0464 .0276 .0170 .0108 .0071 .0049	.0684 .1315 .2494 .4656 .8527 1.5239 2.6385 4.3856 6.9291 10.3119 14.3666 18.7210 20.5920	5,6355 5,9132 6,14775 6,4775 6,7590 7,0344 7,2975 7,5407 7,7555 7,9347 8,0745 8,1758 8,2092	106.8383 108.5622 110.0888 111.3161 112.0833 112.1493 111.1760 108.7328 104.3469 97.6258 88.4810 77.5130 72.6136	7.6265 7.8190 8.0153 8.2199 8.4404 8.6883 8.9822 9.3520 9.8508 10.5857 11.8164 14.3131 16.3325	1.0625 1.0617 1.0622 1.0641 1.0682 1.0758 1.0758 1.0894 1.1139 1.1598 1.2530 1.4690 1.6535	1.0586 1.0552 1.0552 1.0542 1.0344 1.0196 .9970 .9630 .9132 .8436 .7527 .6466	.9964 .9939 .9833 .9728 .9562 .9310 .8941 .8428 .7758 .6945 .6036	NO AVAIL		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000
				s/R	= 7.5000						
T	V	p	h/RT	a	c _p /R	γ	$\gamma_{\rm e}$	Z	μ	k	N _{Pr}
278.7285 288.7285 298.7285 308.7285 318.7285 328.7285 338.7285 348.7285 358.7285 368.7285 368.7285 378.7285 388.7285	1.5552 .8494 .4683 .2609 .1472 .0842 .0491 .0293 .01b0 .C114 .C075 .0051	.0733 .1387 .2595 .4787 .8686 1.5435 2.6702 4.4609 7.1318 10.8142 15.4534 20.7854 23.7871	6.1586 6.4488 6.7428 7.0390 7.3345 7.6256 7.9066 8.1705 8.4091 8.6146 8.7820 8.9109 8.9655	110.4550 112.1520 113.6816 114.9594 115.8520 116.1582 115.5917 113.7811 110.3120 104.8453 97.3472 88.4609 83.7255	7.9531 8.1365 8.3220 8.5133 8.7161 8.9391 9.1963 9.5094 9.9146 10.4773 11.3288 12.7531	1.0595 1.0588 1.0585 1.0585 1.0602 1.0631 1.0686 1.0784 1.0957 1.1267 1.1841 1.2956	1.0563 1.0534 1.0496 1.0442 1.0362 1.0240 1.0056 .9780 .937R .8820 .8106 .7308	.9970 .9950 .9917 .9863 .9778 .9644 .9438 .9133 .8703 .8132 .7427 .6627	NOT AVAILA	BLE	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000

TABLE VI.- Continued

s/R= 8.0000														
Ţ	٧	р	h/RT	a	c _p ∕R	γ	Υ _e	Z	μ	k	N Pr			
299.4817 309.4817 319.4817 329.4817 339.4817 359.4817 359.4817 369.4817 379.4817 399.4817 409.4817 409.4817	1.3832 .7666 .4286 .2420 .1382 .0800 .0471 .0283 .0174 .0111 .0073 .005C	.0886 .1648 .3034 .5515 .9875 1.7354 2.9766 4.9484 7.9062 12.0397 17.3767 23.7273 28.8447	6.7755 7.0788 7.3857 7.6948 6.0034 8.3080 8.6033 8.6828 9.1383 9.3624 9.5496 9.6993 9.7870	114.3689 116.0129 117.5027 118.7617 119.6697 120.0466 119.6375 118.1149 115.1231 110.4022 104.0303 96.7832 91.9598	8.3091 8.4637 8.6597 8.6402 9.0299 9.2361 9.4703 9.7501 10.1036 10.5785 11.2588 12.2678 13.3525	1.0568 1.0561 1.0558 1.0561 1.0572 1.0576 1.0642 1.0722 1.0862 1.1104 1.1531 1.2278	1.0538 1.0512 1.0427 1.0429 1.0357 1.0249 1.0086 .9844 .9497 .9026 .7848 .7518	.9972 .9954 .9954 .9876 .9800 .9681 .9498 .9229 .8848 .8342 .7717 .7013	NOT AVAILAB	LE	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000			
S/R= 8.5000														
T	V	р	h ∨RT	а	c _p ∕R	γ	Υe	Z	μ	k	N _{Pr}			
318.7444 328.7444 348.7444 358.7444 368.7444 378.7444 388.7444 398.7444 408.7444 418.7444 428.7444 437.5565	1.3833 .7765 .4394 .2509 .1447 .0500 .0302 .0186 .0118 .0077 .0053	.0943 .1730 .3142 .5643 1.0000 1.7437 2.9778 4.9504 7.9523 12.2475 17.9735 25.0895 32.4269	7.3723 7.6875 8.0064 8.3277 8.6493 8.9679 9.2791 9.5768 9.8537 10.1021 10.3160 10.4936	117.9107 119.5274 121.0120 122.3009 123.2948 123.8448 123.7393 122.7044 120.4386 116.7203 111.6242 105.8419 101.3991	8.6240 8.7899 8.9563 9.1254 9.3009 9.4986 9.6969 9.9390 10.2355 10.6184 11.1391 11.8715	1.0544 1.0538 1.0535 1.0536 1.0543 1.0561 1.0595 1.0655 1.0758 1.0758 1.0733 1.1228 1.1714	1.0519 1.0497 1.0498 1.0426 1.0367 1.0145 .9949 .9669 .9294 .8839 .8387	.9976 .9961 .9937 .9897 .9835 .9737 .9588 .9367 .9052 .8628 .3099 .7496	NOT AV A I L A B LI	Ε	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000			
S /R= 9.0000														
T	٧	þ	h ∕RT	a	c _p ∕R	γ	Υ _e	Z	μ	k	N _{Pr}			
338.4582 348.4582 358.4582 378.4582 378.4582 388.4582 4582 4582 4582 4582 4582 4582 4582	1.3831 .7862 .4503 .2600 .1515 .0893 .0533 .0223 .0200 .0127 .0083 .0056 .0039	.1002 .1812 .3248 .5763 1.0104 1.7464 2.9645 4.9171 7.9176 12.2883 18.2701 25.9536 35.3469 36.0338	8.0057 8.3325 8.6630 8.9961 9.229 9.6617 9.9876 10.3023 10.5989 10.8702 11.1098 11.3147 11.4875 11.4979	121.4243 123.0129 124.4877 125.7962 126.8565 127.5462 127.0673 125.4621 125.25719 118.5816 114.0497 110.3311 110.1566	8.9326 9.0902 9.2474 9.4060 9.7690 9.7406 9.9275 10.1395 10.3918 10.7072 11.1192 11.6713 12.3941 12.4479	1.0524 1.0518 1.0514 1.0519 1.0559 1.0558 1.0608 1.0608 1.0810 1.1023 1.1023 1.1028 1.1028	1.0502 1.0483 1.0458 1.0423 1.0373 1.0373 1.0300 1.0191 1.0033 .9809 .9511 .9155 .8813 .8636	.9980 .9967 .9947 .9914 .9863 .9783 .9661 .9480 .9221 .6871 .8428 .7918 .7397 .7364	NOT AVAILAI	BLE	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000			
				s	/R= 9.500	0								
Т	V	p	h∕RT	a	c∕R p	γ	Υ. _e	Z	μ	k	N _{Pr}			
358.6211 368.6211 378.6211 388.6211 408.6211 418.6211 428.6211 438.6211 448.6211 458.6211 468.6211 478.6211 478.4211 481.3998	1.3833 .7961 .4614 .2695 .1587 .0944 .0568 .0347 .0216 .0137 .0090 .0060	.1062 .1894 .3350 .5572 1.0182 1.7433 2.9381 4.8534 7.8139 12.1833 18.2678 26.3405 36.4662 39.6774	8.6760 9.0141 9.3558 9.7003 10.0458 10.3901 10.7297 11.0599 11.3748 11.6673 11.9312 12.1627 12.3629 12.4135	124.9128 126.4730 127.9350 129.2554 130.3671 131.5236 131.5240 130.1276 128.0233 124.9881 121.5290 118.4055	9.2342 9.3835 9.5319 9.6809 9.8325 9.9901 10.1589 10.3464 10.5639 11.1619 11.5938 12.1418 12.3131	1.0505 1.0499 1.0495 1.0495 1.0508 1.0508 1.0528 1.0563 1.0622 1.0720 1.0877 1.1119 1.1466 1.1580	1.0486 1.0470' 1.0449 1.0377 1.0317 1.0228 1.0100 .9922 .9686 .9410 .9153 .9041	.9983 .9972 .9955 .9928 .9885 .9820 .9720 .9573 .9362 .9075 .8709 .8285 .7848	NOT AVAILABLI	E	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000			

TABLE VI.- Continued

5 /R=10.0000														
T	٧	р .	h∕RT	a	c _p ∕R	Υ	Υe	Z	μ	k	N _{Pr}			
379.2527 389.2527 409.2527 419.2527 429.2527 439.2527 449.2527 449.2527 469.2527 469.2527 479.2527 489.2527 499.2527 499.2527	1.3336 .8060 .4728 .2793 .1663 .0999 .0606 .0373 .0233 .0149 .0097 .0096 .0046	.1123 .1976 .3451 .5974 1.0243 1.7362 2.9024 4.7677 7.6569 11.9646 18.0754 26.3103 36.9086 43.3736	9.3845 9.7334 10.0861 10.4414 10.7981 11.1541 11.5065 11.8512 12.1828 12.4950 12.7817 13.0385 13.2653 13.3715	128.3822 129.9140 131.3610 132.6874 133.8382 134.7328 135.2578 135.2662 134.5958 133.1268 130.9101 128.3701 126.4967 126.2634	9.5281 9.6695 9.8095 9.9492 10.0904 10.2357 10.3890 10.7561 10.7457 10.9700 11.2458 11.5928 12.0235 12.2746	1.0488 1.0483 1.0479 1.0478 1.0488 1.0503 1.0530 1.0576 1.0651 1.0770 1.0950 1.1205 1.1364	1.0472 1.0457 1.0439 1.0414 1.0379 1.0329 1.0257 1.0155 1.0013 .9829 .9616 .9424 .9360	.9985 .9976 .9962 .9939 .9904 .9850 .9769 .9650 .9479 .9245 .8859 .8599 .8069	NOT A VAILABLE	:	0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000			
S /R=10.5000														
T	٧	p	h /RT	a	c _p ∕R	γ	γ _e	Z	μ	k	N _{Pr}			
400.3719 410.3719 420.3719 430.3719 440.3719 450.3719 460.3719 470.3719 480.3719 490.3719 500.3719 500.3719 520.3719	1.3833 .8157 .4841 .2893 .1741 .1057 .0648 .0402 .0253 .0162 .0162 .0106 .0072 .0050	.1186 .2059 .3550 .6071 1.0290 1.7262 2.8602 4.6667 7.4673 11.6613 17.6827 25.9310 36.7608 47.1325	10.1321 10.4917 10.8548 11.2206 11.5579 11.9950 12.3194 13.0244 13.0244 13.0244 13.0347 14.1956 14.3731	131.8377 133.3414 134.7718 136.0994 137.2798 138.9140 139.1620 138.8653 137.9327 130.4115 134.6568 133.4966	9.8140 9.9475 10.0793 10.2103 10.3418 10.4760 10.6158 10.7657 10.9325 11.1253 11.3567 11.6408 11.9879 12.2953	1.0472 1.0468 1.0464 1.0463 1.0464 1.0470 1.0503 1.0503 1.0539 1.0689 1.0826 1.1019	1.0459 1.0446 1.0446 1.0409 1.0380 1.0281 1.0199 1.0087 .9944 .9782 .9642 .9611	.9987 .9979 .9967 .9948 .9920 .9876 .9810 .9713 .9575 .9388 .9147 .8865 .8574	NOT AVAILABLE		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000			
					S /R=11.000			7	11	k	N			
T	V	Р	h∕RT	а	c _p /R	Υ	Υe	Z	μ	K	N _{Pr}			
421.9859 431.9859 441.9859 451.9859 461.9859 471.9859 501.9859 501.9859 521.9859 531.9859 551.9859 551.9859	1.3832 .8255 .4958 .2996 .1824 .1118 .0662 .0433 .0274 .0177 .0116 .0078 .0055 .0039	.1250 .2143 .3647 .6161 1.0322 1.7132 2.8119 4.5528 7.2468 25.2720 36.1092 50.1143 50.9660	10.9195 11.2893 11.6625 12.0384 12.4159 12.7935 13.1691 13.5395 13.9006 14.2475 14.57747 14.8776 15.1544 15.4069 15.4199	135.2820 136.7582 138.1711 139.4965 140.6987 141.7262 142.5085 142.9704 142.4878 141.5530 140.4614 149.9041 140.9982 141.1279	10.0911 10.2169 10.3407 10.4632 10.5857 10.7096 10.6375 10.9727 11.1204 11.2878 11.4842 11.7206 12.0051 12.3347 12.3534	1.0458 1.0451 1.0450 1.0455 1.0455 1.0464 1.0481 1.0556 1.0627 1.0733 1.0882 1.1072	1.0447 1.0435 1.0422 1.0404 1.0380 1.0346 1.0299 1.0234 1.0147 1.0037 '.9915 .9816 .9809 1.0002 1.0020	.9989 .9982 .9972 .9956 .9956 .9933 .9897 .9843 .9765 .9655 .9506 .9315 .9090 .8858 .8664	NOT AVAILABLE		0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000			
				s	/R=11.5000)								
T	٧	р	h∕RT	а	c _p ∕R	γ	Υ _e	Z	μ	k	N _{Pr}			
444.1139 454.1139 464.1139 474.1139 484.1139 504.1139 504.1139 524.1139 524.1139 534.1139 544.1139 554.1139 554.1139 574.1139	1.3832 .8355 .5076 .3103 .1910 .1184 .0740 .0467 .0298 .0193 .0128 .0086 .0060 .0043	.1316 .2226 .3741 .6244 1.0340 1.6976 2.7591 4.4300 7.0066 10.8771 16.5042 24.3966 35.0546 49.0003 54.8816	11.7478 12.1274 12.5103 12.8958 13.2830 13.6706 14.0566 14.4385 14.8126 15.1747 15.5197 15.8432 16.1428 16.4195	138.7194 140.1688 141.5635 142.8840 144.1018 145.1767 146.6531 146.8316 146.3884 145.8528 145.8528 147.1886 148.2482	10.3589 10.4770 10.5930 10.7074 10.8212 10.9357 11.0527 11.4750 11.4529 11.6214 11.8204 12.0567 12.3300 12.4343	1.0446 1.0442 1.0439 1.0438 1.0438 1.0441 1.0449 1.0462 1.0578 1.0578 1.0579 1.0929 1.0989	1.0435 1.0426 1.0414 1.0399 1.0351 1.0314 1.0263 1.0112 1.0023 .9955 .9966 1.0145 1.0268	.9990 .9985 .9976 .9963 .9943 .9914 .9871 .9872 .9604 .9454 .9278 .9098 .8950 .8915	NOT AVAILABLE		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000			

TABLE VI.- Concluded

S /R=12.0000														
ľ	٧	р	h/RT	a	c _p /R	γ	Υ _e	Z	μ	k	N_Pr			
466.7763 476.7763 486.7763 506.7763 516.7763 526.7763 536.7763 536.7763 556.7763 556.7763 56.7763 588.8889	1.3832 .8456 .5197 .3214 .2000 .1253 .0791 .0504 .0325 .0212 .0141 .0396 .0066	.1383 .2310 .3834 .0321 1.0346 1.6799 2.7027 4.3010 6.7518 10.4297 15.7939 23.3657 33.6927 36.2826	12.6179 13.0070 13.3992 13.7739 14.1903 14.5872 14.9831 15.3756 15.7617 16.1376 16.4989 16.8413 17.1622 17.2272	142.1540 143.5773 144.9534 146.2668 147.4953 148.6075 149.5620 15J.3087 150.7976 150.9999 150.9621 150.8906 151.2609 151.4658	10.6168 10.7273 10.8356 10.9422 11.0477 11.1532 11.2602 11.3710 11.4885 11.6173 11.7629 11.9319 12.1301 12.1760	1.0434 1.0431 1.0428 1.0427 1.0427 1.0429 1.0435 1.0446 1.0465 1.0540 1.0606 1.0608 1.0698	1.0425 1.0417 1.0407 1.0394 1.0377 1.0355 1.0326 1.0286 1.0234 1.0173 1.0109 1.0067 1.0096	.9991 .9987 .9979 .9969 .9953 .9929 .9895 .9877 .9686 .9570 .9298	NOT AVAILABLE		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000			
s /R=12.5000 ·														
T	٧	p	h ∠RT	a	c _p /R	Υ	Υe	Z	μ	K	N _{Pr}			
489.9946 499.9946 519.9946 529.9946 529.9946 549.9946 559.9946 569.9946 579.9946 588.8889	1.3836 .8556 .5321 .3328 .2094 .1326 .0846 .0544 .0354 .0233	.1452 .2394 .3925 .6392 1.0341 1.6604 2.6430 4.1678 6.4914 9.9673 14.3858	13.5308 13.9290 14.3300 14.7335 15.1386 15.5445 15.9495 16.3519 16.7490 17.1375	145.5894 146.9873 148.3447 149.6494 150.6843 152.0256 153.0432 153.9003 454.5643 155.0209 155.2881	10.8642 10.9672 11.0680 11.1668 11.2643 11.3613 11.4590 11.5593 11.6645 11.7782	1.0424 1.0421 1.0418 1.0417 1.0417 1.0419 1.0424 1.0433 1.0448 1.0472 1.0503	1.0416 1.0409 1.0400 1.0389 1.0376 1.0358 1.0335 1.0304 1.0266 1.0222	.9992 .9988 .9983 .9974 .9961 .9942 .9914 .9876 .9823 .9753	NOT AVAILABLE		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000			
•					/R=13.000									
T	V	р	h∕RT	a	c R	γ	Υ _e	Z	μ	k	N _{Pr}			
513.7921 523.7921 533.7921 543.7921 553.7921 563.7921 573.7921 583.7921 588.8889	1.3836 .8659 .5448 .3447 .2194 .1404 .0905 .0588 .0474	.1522 .2479 .4013 .6457 1.0322 1.6393 2.5819 4.0310 5.0398	14.4876 14.8944 15.3039 15.7157 16.1291 16.5432 16.9569 17.3685 17.5767	149.0293 150.4026 151.7412 153.0359 154.2738 155.4372 156.5050 157.4523 157.8814	11.1006 11.1962 11.2894 11.3806 11.4703 11.5592 11.6482 11.7388 11.7862	1.0414 1.0411 1.0409 1.0408 1.0408 1.0409 1.0413 1.0421	1.0407 1.0401 1.0394 1.0385 1.0374 1.0360 1.0342 1.0319	.9993 .9990 .9985 .9978 .9967 .9952 .9931 .9901	NOT AVAILABLE		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000			
				s	/R=13.500	,								
Ţ	٧	р	h/RT	a	c _p ∕R	γ	Υ _e	Z	μ	k	N Pr			
538.20_ 548.2056 558.2056 568.2056 578.2056 588.2056 588.8889	1.3836 .8763 .5576 .3569 .2297 .1486 .1443	.1595 .2564 .4101 .6518 1.0300 1.6170	15.4898 15.9048 16.3223 16.7419 17.1631 17.5851 17.6139	152.4788 153.8282 155.1481 156.4317 157.6695 158.8493 158.9274	11.3254 11.4136 11.4994 11.5832 11.6653 11.7462	1.0405 1.0403 1.0401 1.0400 1.0400 1.0401	1.0400 1.0394 1.0388 1.0381 1.0372 1.0361 1.0360	.9994 .9992 .9988 .9982 .9973 .9962	NOT AVAILABLE		0.0000 0.0000 0.0000 0.0000 0.0000 0.0000			
				s	/R=14.000	•								
τ	V	p	h ∕RT	a	c ∕ R P	. у	γ _e	Z	μ	k	N _{Pr}			
563.2567 573.2567 583.2567 588.8889	1.3832 .8864 .5709 .4465	•1669 •2651 •4187 •5404	16.5382 16.9609 17.3860 17.6263	155.9406 157.2668 158.5682 159.2883	11.5380 11.6188 11.6973 11.7406	1.0398 1.0395 1.0394 1.0393	1.0392 1.0388 1.0383 1.0380	.9995 .9993 .9990 .9987	NOT AVAILABLE		0.0000 0.0000 0.0000 0.0000			

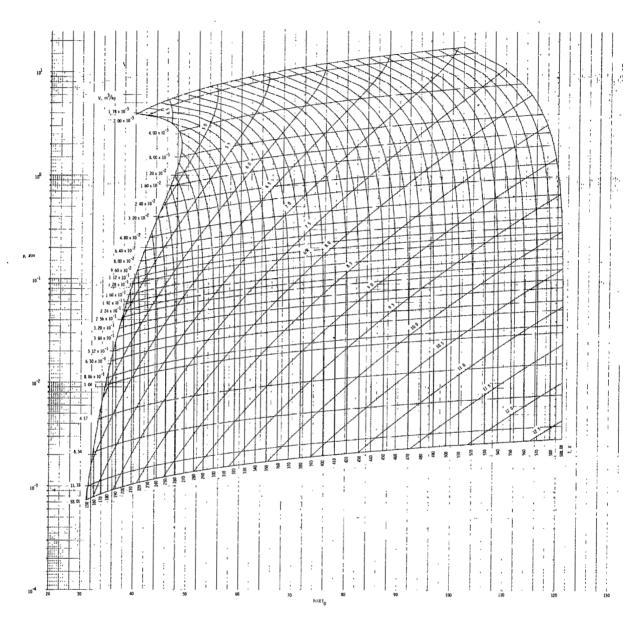


Figure 1.- Pressure enthalpy diagram for ${\tt CBrF}_3$ with lines of constant entropy, volume, and temperature.

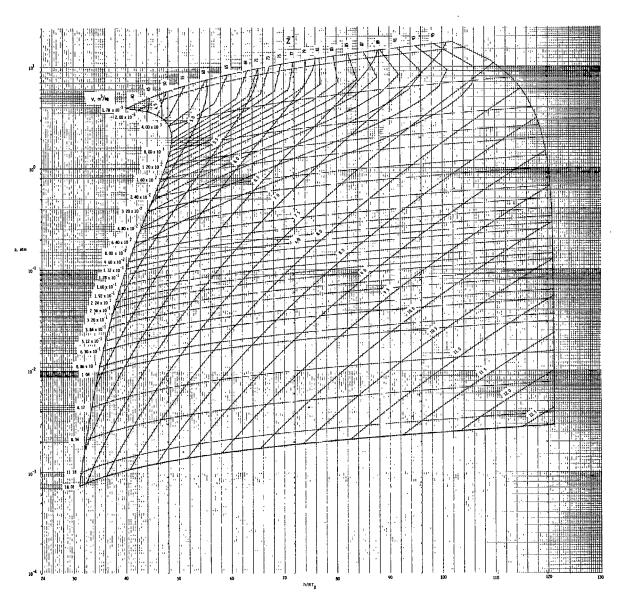


Figure 2.- Pressure enthalpy diagram for ${\tt CBrF_3}$ with lines of constant entropy, volume, and compressibility factor.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION WASHINGTON, D.C. 20546

OFFICIAL BUSINESS

SPECIAL FOURTH-CLASS RATE BOOK



212 001 C1 U D 770311 S00903DS DEPT OF THE AIR FORCE AF WEAPONS LABORATORY ATTN: TECHNICAL LIBRARY (SUI) KIRTLAND AFB NM 87117

POSTMASTER:

If Undeliverable (Section 158 Postal Manual) Do Not Return

"The aeronautical and space activities of the United States shall be conducted so as to contribute . . . to the expansion of human knowledge of phenomena in the atmosphere and space. The Administration shall provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof."

-NATIONAL AERONAUTICS AND SPACE ACT OF 1958

NASA SCIENTIFIC AND TECHNICAL PUBLICATIONS

TECHNICAL REPORTS: Scientific and technical information considered important, complete, and a lasting contribution to existing knowledge.

TECHNICAL NOTES: Information less broad in scope but nevertheless of importance as a contribution to existing knowledge.

TECHNICAL MEMORANDUMS:

Information receiving limited distribution because of preliminary data, security classification, or other reasons. Also includes conference proceedings with either limited or unlimited distribution.

CONTRACTOR REPORTS: Scientific and technical information generated under a NASA contract or grant and considered an important contribution to existing knowledge.

TECHNICAL TRANSLATIONS: Information published in a foreign language considered to merit NASA distribution in English.

SPECIAL PUBLICATIONS: Information derived from or of value to NASA activities. Publications include final reports of major projects, monographs, data compilations, handbooks, sourcebooks, and special bibliographies.

TECHNOLOGY UTILIZATION

PUBLICATIONS: Information on technology used by NASA that may be of particular interest in commercial and other non-aerospace applications. Publications include Tech Briefs, Technology Utilization Reports and Technology Surveys.

Details on the availability of these publications may be obtained from:

SCIENTIFIC AND TECHNICAL INFORMATION OFFICE

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Washington, D.C. 20546